MINUTES

MONTANA SENATE
53rd LEGISLATURE - REGULAR SESSION

COMMITTEE ON PUBLIC HEALTH, WELFARE & SAFETY

Call to Order: By Senator Dorothy Eck, Chair, on January 27, 1993, at 1:00 p.m.

ROLL CALL

Members Present:
Sen. Dorothy Eck, Chair (D)
Sen. Eve Franklin, Vice Chair (D)
Sen. Chris Christiaens (D)
Sen. Tom Hager (R)
Sen. Terry Klampe (D)
Sen. Kenneth Mesaros (R)
Sen. David Rye (R)
Sen. Tom Towe (D)

Members Excused: Sen. Tom Hager

Members Absent: None.

Staff Present: Susan Fox, Legislative Council
Laura Turman, Committee Secretary

Please Note: These are summary minutes. Testimony and discussion are paraphrased and condensed.

Committee Business Summary:
Hearing: SB 145
Executive Action: None.

HEARING ON SB 145

Opening Statement by Sponsor:

Sen. Mignon Waterman, Senate District 22, Helena, said SB 145 will provide a definition in statute for traumatic brain injury (TBI), it will establish a traumatic brain injury trust fund, and it charges the department of SRS with conducting a systems change and demonstration project that will establish model programs for support and living care management for individuals suffering from TBI. It will also recommend a permanent lead agency for the administration of the TBI Trust Fund, and it will provide the 54th Legislative Session with a report of its findings. Sen. Waterman said SB 145 will provide hope for individuals who have suffered from TBI and their family members. After the intensive hospital care for TBI sufferers, there are high medical bills, questions and frustrations that those involved must endure. Sen. Waterman provided two handouts about TBI. (Exhibit #1, Exhibit #2) She noted that head injuries are responsible for five of the ten top Medicaid bills for Montana. Many brain injury patients are placed in nursing homes, where their stay can be forty to fifty years. Many of these individuals, if they are not in a nursing home, need care for the rest of their lives. Sen. Waterman said the funding for the Trust Fund would come from a $15.00 increase in the $5.00 speeding ticket. She called the Committee's attention to the Fiscal Note for SB 145.

Proponents' Testimony:

Dr. Allen Weinart, Physiatrist, Helena said he has seen many individuals suffering from TBI. Dr. Weinart said traumatic brain injury affects certain functions of the brain, and the rehabilitation success is based on the patient's ability to capitalize on the remaining functions. Between 700,000 and 1,000,000 traumatic brain injuries occur each year in the United States, and in Montana, there are about 1800 new traumatic brain injuries each year. Car accidents are by far the most common cause, the mortality rate is 50%, and individuals between 15 and 24 years of age suffer the most traumatic brain injuries which means that the average life expectancy is more that 44 years after the injury. Alcohol is the most common risk factor and it is involved in 70% of all traumatic brain injuries. The estimated national cost of care for TBI sufferers is 25 billion dollars per year. There are many medical and emotional problems that can accompany a traumatic brain injury. Individuals who have suffered a traumatic brain injury may have many social problems as well including depression, isolation, chemical abuse and unemployment. Dr. Weinart listed three phases of treatment for traumatic brain injuries: the survival phase, the early neurologic recovery phase, and the post acute rehabilitation phase which is the most difficult because the individual needs much adapting to society. It is important that individuals who have suffered a traumatic brain injury become productive, independent citizens.

John McCulloch, President Montana Head Injury Association, Bozeman, provided written testimony, (Exhibit #3) and a summary of the Interagency Head Injury Task Force Report. (Exhibit #4)

Sen. Fred Van Valkenberg, Senate District 30, said his brother suffered a brain stem injury three and a half years ago, and Sen. Van Valkenberg has had direct experience as a family member dealing with the injuries his brother sustained. This injury can happen to anyone at anytime, and his direct experiences with the medical rehabilitation and the family problems have lead to his conclusion that it is "more than appropriate" to raise the speeding fine by fifteen dollars to set up a trust fund to help individuals to deal with these problems. Taxes will not be raised, and this is an appropriate use of public resources. Sen.

Van Valkenberg said "if we truly have a respect for life" a state-wide program is needed to deal with these problems. He urged the Committee's support of SB 145.

Lorie Wallace, TBI survivor, Helena, provided written testimony. (Exhibit #5)

Greg Engellant, TBI survivor, Helena, provided written testimony. (Exhibit #6)

Marie Beveridge-Sloan, family member, Helean, provided written testimony. (Exhibit #7)

Ramon Rahieri, TBI survivor, Helena said while he was driving, he was hit by a car going about 75 miles per hour in a housing district. He was in a coma for ten days. He has very high medical bills, and depends on Social Security and the state of Montana. Mr. Rahieri said he cannot work and is unable live independently. He lives with his parents and his future goals are to work with Helena Industries and get a job. He urged the Committee to support SB 145.

Stacy Crockett, TBI survivor, Helena, provided written testimony. (Exhibit #8)

Cathy Ward, husband suffered TBI, Helena, provided written testimony. (Exhibit #9)

Jack Guyer, TBI survivor, Missoula, provided written testimony. (Exhibit #10)

Tom Gale, TBI survivor, Missoula, provided written testimony. (Exhibit #11)

Jason Burrell, TBI survivor, Missoula, provided written testimony. (Exhibit #12)

Brenda Rassmussen, TBI survivor, Missoula, provided written testimony. (Exhibit #13)

Beckie Lester, TBI survivor, Missoula, provided written testimony. (Exhibit #14)

Sandra Lehmann, TBI survivor, Missoula, provided written testimony. (Exhibit #15)

Jim Laindlaw, owner Jimmy Lee's Chinese Restaurant in Whitefish, and member of the Montana State Head Injury Board, said his son suffered a traumatic brain injury four years ago in an automobile accident, and they were fortunate enough to have insurance. He urged the Committee to help the state of Montana arrive at legal definition of traumatic brain injury.

Donald Malone, TBI survivor, Billings, said SB 145 because TBI survivors are "falling through the cracks." Mr. Malone said he and his wife teach at Montana State College, and he provided written testimony and also included some of the materials used for the classes they teach together. (Exhibit #16)

Tom MacLeod, TBI survivor, Billings, provided written testimony. (Exhibit #17)

Paul Schofield, TBI survivor, Bozeman said "even senior citizens" can be victims of accidents. Three years ago, Mr. Schofield was stuck head-on by a truck pulling a loaded four-horse trailer. He said his seat belt saved his life, but the accident ruined his career and wiped out his savings even though insurance covered about $750,000. He has memory loss, and has a headache 24 hours a day and will have it for the rest of his life.

Joe Matthews, Administrator for the Vocational Rehabilitation Program, said he has worked with individuals with disabilities, and services to brain injured individuals fall short in Montana. Mr. Matthews went over what the demonstration project would include if SB 145 were to pass. It includes a model of supported case management living of service delivery for the TBI survivors. An advisory board, made up of at least 51% TBI survivors or family members, would work with the project staff of the Montana Head Injury Association. It would be determined what services are needed for TBI survivors in communities. A legislative report would be submitted in September 1994 to the Department of SRS outlining a model of supported living case management for individuals with traumatic brain injury. This includes priorities such as maximum utilization of existing non-public funded community supports, maximum utilization of existing Human Service agencies and funding, additional public funding to sustain the case management service project volunteers, and projections for identification of populations in need.

Anne Patrick, Bozeman, said she is representing the only nursing care facility in Montana which offers services specifically for individuals who have suffered a traumatic brain injury. Currently there are only two group homes in Montana with the facilities to take TBI patients. They need funding and recognition.

Greg Daly, private provider, Helena, said he has worked for thirteen years with individuals who have suffered traumatic brain injuries, and he helped create the local support group. He said it is a brutal transition from acute care to recovery and independence. There is a sense of great loss of self, friends, family, and functions. It is very tough on families, and the limited services in Montana create alienation, depression and even drug addiction for TBI survivors. They need a sense of belonging, a sense of personal value, and meaningful activity.

Dennis Malone, son of TBI victim, said it can happen to anyone and it does not only affect the survivor. The head injury affects the entire family. He said SB 145 needs to pass so that help for head injured individuals is available.

Daniel Cocker, Helena, said he received a TBI in a motorcycle accident in 1977. It took him over three years and ten operations to recover from the initial accident. Three years ago he went to a Helena Head Injury Support Group and found that he has many of the same behavioral patterns and other traits as other group members. He said it is very important that SB 145 pass.

Jim Smith, lobbyist for the Montana Head Injury Association, thanked Sen. Waterman for carrying SB 145. Mr. Smith said SB 145 is an urgently needed bill, and the Head Injury Association is eager to work with Vocational Rehabilitation and to work with Committee members to pass this bill.

Opponents' Testimony:

None.

Questions From Committee Members and Responses:

Sen. Klampe asked Sen. Waterman about new funds generated by SB 145. Sen. Waterman said that estimate is three quarters of a million dollars per year generated for the Trust Fund. The revenues are derived from the Trust Fund. They anticipate the Demonstration Project will spend $300,000 of the Trust Fund during the first two years. The rest will remain in the Trust Fund, to be allocated based upon the report to the Legislature next session. There would be no general fund impact.

Sen. Christiaens asked Susan Fox, Legislative Council, about other bills currently pending in the Legislature regarding an increase in the traffic violation fine. Sen. Christiaens asked what would happen if all the bills passed. Susan Fox said it depends upon the bill and how those bills appropriate money. She said she would research the bills so the Committee would know the ramifications.

Sen. Christiaens asked the Committee to be aware that it costs the state approximately $25.00 to process each speeding ticket.

Sen. Towe asked Sen. Waterman about the fiscal note and the loss to counties of about $55,000.00 per year. Sen. Waterman said it is the "greater good" to reduce speeding violations in Montana by one third, and in the long run it would save the state of Montana money.

Sen. Towe said it was his understanding the $5.00 speeding ticket was "a protest" because it is required by federal law. It costs the state more than $5.00 to process the ticket. Sen. Towe asked

Sen. Waterman if she had made any allowances for that. Sen. Waterman said SB 145 does not make any allowance for that and the state will continue to subsidize the processing of the tickets. Sen. Waterman said if all the bills regarding speeding ticket violation increases, she would be happy to work in a conference committee to work out the differences.

Sen. Towe asked Sen. Waterman about the fiscal note not including an appropriation. Sen. Waterman said if SB 145 passes, it then is put into the Appropriations Bill.

Sen. Towe asked Sen. Waterman if she had any specific directions to put into the appropriation. Sen. Waterman said that is stated in SB 145.

Sen. Towe asked Sen. Waterman if there were no actual program activities, just the funding for it. Sen. Waterman said the demonstration project will develop services during the next two years.

Sen. Towe asked how much of the $300,000 allocated to the demonstration project went towards planning. Joe Matthews said that for the demonstration project, eight individuals who have suffered a traumatic brain injury or who are family members, will be identified and a number of small services be provided to these eight individuals. This will determine what is needed. A model program will be developed around these individuals, and then a report of recommendations will be prepared for the next legislative session.

Sen. Towe said this "sounds like all planning and no services." Mr. Matthews said the eight individuals identified will receive services.

Sen. Towe asked Joe Matthews if the cost were half of $300,000. Mr. Matthews said it would be $150,000 for each year of the biennium.

Sen. Towe asked Mr. Matthews if any money were left for planning. Mr. Matthews said that an advisory council would be put together and there would be some funds would be left for that. The Department would contract the services to a community provider.

Sen. Mesaros asked Sen. Waterman about the five agency accounts that would lose revenue according to the fiscal note. Sen. Waterman said there was no concerns from these agencies.

Sen. Klampe asked what the percentage of traumatic brain injuries result from not wearing a motorcycle helmet. Jason Burrell said he was going to do a helmet law commercial in Missoula. Daniel Cocker said he was wearing a full face wrap-around motorcycle helmet when he was in his motorcycle accident. Upon impact, the top of his helmet broke off. He said that individuals who don't wear helmets die, but an impact will almost always guarantee a head injury, even with a helmet.

Jim Smith said he didn't have the exact percentage, but he has the legislative histories of mandatory helmet laws brought before the Montana Legislature. He said the opponents far outweigh the proponents, and typically, the bills never get passed out of committee.

Closing by Sponsor:

Sen. Waterman said she was impressed by the number of individuals testifying. SB 145 is designed to meet individual needs, and the services provided by this bill far outweigh the costs any loss of revenues lost by increasing the speeding ticket violation fee. Sen. Waterman urged the Committee to pass SB 145.

ADJOURNMENT

Adjournment: Chairman Eck adjourned the hearing.

Dorothy Eck
SENATOR DOROTHY ECK, Chair

Laura Turman
LAURA TURMAN, Secretary

DE/LT

ROLL CALL

SENATE COMMITTEE Public Health DATE 1-27-93

NAME	PRESENT	ABSENT	EXCUSED
CHRISTIAENS	✓		
HAGER			✓
KLAMPE	✓		
MESAROS	✓		
RYE	✓		
TOWE	✓		
FRANKLIN	✓		
ECK	✓		

F08

Attach to each day's minutes

EXHIBIT NO. #1
DATE 1-27-93
BILL NO. SB 145

TRAUMATIC BRAIN INJURY

> *"The mission is to change public policy to prevent traumatic brain injuries, and assist them to live independently, participate fully in life, and be treated with dignity".*
>
> *-Rocky Mountain Regional Brain Injury Center*

Every fifteen seconds someone in the United States sustains a traumatic brain injury (TBI). Every five minutes one dies and another becomes permanently disabled. Of the two million Americans who sustains a TBI annually, two-thirds are under the age of 34. A survivor of a severe brain injury typically faces five to ten years of intensive services at an estimated cost in excess of four million dollars.

Montana has a high rate of substance abuse related to accidents resulting in head injuries. **Motor vehicle crashes cause one half of all TBIs.**

565 IN-PATIENTS WERE TREATED IN THIRTY MONTANA HOSPITALS IN 1991. 374 OF THESE WERE PUBLICALLY FUNDED.

A majority of the TBI residents in nursing homes in Montana are under the age of forty.

Survivors of TBI require many services, after the acute injuries have been treated. *Today only one in twenty people with TBI receives necessary rehabilitation services.*

Post acute in-patient rehabilitation is a critical, but lacking, service for people with head injuries. Individuals with TBI may need physical, speech, occupational therapies, and psychological counseling. Secondary disabilities can surface throughout a survivors lifetime, and appropriate interventions for those must be made available.

Five out of the top ten clients for Medicaid expenditures in FY 92 had a primary diagnosis related to head injury.

Medicaid spent $13,954,800 in FY 92 for services to individuals with head injuries (projected on an annual basis).

MCR7R641.2

STATE OF MONTANA
SRS MEDICAL CLAIMS REPORTING

12/09/92
08.59.19

ROUTE TO: REQUESTOR

RECIPIENT COST ANALYSIS DETAIL

DATES PAID: 07/01/91 THRU 06/30/92

THE FOLLOWING ARE THE RECIPIENT IDS OF THE CLIENTS INCLUDED IN THE 1 - 10 RANGE OF THE RECIPIENT COST ANALYSIS REPORT SUMMARY (MCR7R641.1).

PROGRAM: MEDICAID

31242177T	522,229.28	premature birth
516130750	★370,889.31	– Tumor Head / Transplant, [redacted]
517062219	★354,262.52	– Head Inj. and burns
516881749	★342,938.46	Spin/Brain Inj
21242179T	291,383.21	~~Ht~~ /premature birth
91292831T	271,823.57	premature birth
516210928	251,708.51	– ~~not on the MMIS system~~ 3rd degree burn
21297976T	236,092.90	premature birth
517869240	★220,055.82	Head/Spin INJ
516900285	★209,704.35	Head Inj
	2,799,263	

PROGRAM: STATE MEDICAL

516906505	107,551.82	Head Inj
476641825	101,106.63	Resp. Infection
516307144	76,098.73	
516847400	63,149.38	
524625887	60,924.80	
516624658	52,415.49	
553499217	46,731.99	
517523308	41,415.65	
567641446	39,796.81	
517343901	39,056.87	
536521256	32,803.59	

END OF REPORT

1-27-93
SB-145

DEPARTMENT OF
SOCIAL AND REHABILITATION SERVICES

MARC RACICOT
GOVERNOR

PETER S. BLOUKE, PhD
DIRECTOR

STATE OF MONTANA

P.O. BOX 4210
HELENA, MONTANA 59604-4210

January 22, 1993

Senator Mignon Waterman
Capitol Station
Helena, MT 59620

Dear Senator Waterman:

This is in response to your request to Nancy Ellery regarding Medicaid costs for persons with head injuries.

In the last six months of 1992, Medicaid paid a total of $6,977,400 for services to clients with head injuries. Projected on an annual basis, Medicaid spent $13,954,800 in FY 92 for services to individuals with head injuries.

Claims were only included if the provider listed one of the diagnostic codes relating to head injury. Claims submitted for secondary complications resulting from a head injury would have a different diagnostic code and not show up in this count. Claims for pharmaceuticals are not included in this count.

In addition, we looked at the top ten clients for Medicaid expenditures in FY 92. Attached is a summary of their costs. These top ten clients cost $2,799,263 in FY 92. Fifty percent of these clients had a primary diagnosis related to head injury.

I hope this information is helpful. Please let me know if I can be of further assistance.

Sincerely,

Peter S. Blouke, Ph.D.
Director

c: Nancy Ellery, Medicaid Division
John Chappuis, Medicaid Division
C. Cowie, Medicaid Division
Joe Mathews, Voc. Rehab. Division
Bob Jahner, Voc. Rehab. Division

"AN EQUAL OPPORTUNITY EMPLOYER"

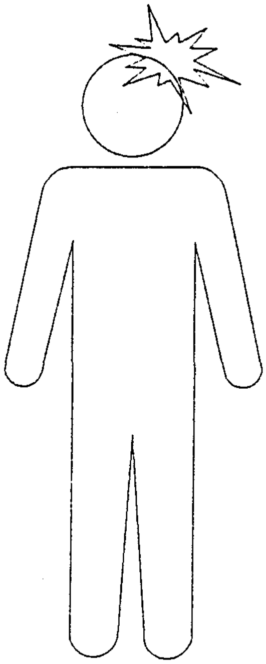
and Welfare Committee
Exhibit 2

BILL NO. SB145

MEDICAID SERVICES SURVEYS

HEAD INJURIES IN MONTANA

HOSPITALS AND NURSING FACILITIES



Department of Social and Rehabilitation Services
Medicaid Services Division
Long Term Care Bureau

The original is stored at the Historical Society at 225 North Roberts Street, Helena, MT 59620-1201. The phone number is 444-2694.

October, 1992

The Montana Head Injury Association, Inc.

[illegible] 3
DATE 1-27-93
BILL NO. SB 145

Jan. 27, 1993

To the Senate Committee on Public Health, Welfare and Safety:

Subj: Senate bill 145

I want to thank you for the privilege of meeting with you today, and for taking the time to consider the need for this important legislation.

My name is John McCulloch from Belgrade Montana. I represent the Montana Head Injury Association, a private, non-profit organization of survivors of traumatic brain injury, family members, and health care and other professionals. We have branch chapters or support groups in most major cities in our State.

The following are facts which I believe support the need for Senate Bill 145:

In 1988, the Secretary of the United States Department of Health and Human Services, at the direction of Congress, established a task force to identify the gaps in research, training and service delivery in meeting the needs of the traumatic head injured. The following is taken from that report entitled, "Interagency Head Injury Task Force

An Affiliate of the National Head Injury Foundation

Report," February, 1989. I have given you a copy of the summary of that document.

MAGNITUDE OF THE PROBLEM

- -Every 15 seconds someone receives a head injury in the U.S.
- -Each year, head injuries claim the life of 75,000 to 100,000 Americans.
- -Of those who survive, 70,000 to 90,000 will endure life long debilitating loss of function.
- -A conservative estimate puts the total number of head injuries at over two million each year.
- -500,000 of these injuries will require hospitalization
- -Figures extrapolated for Montana put the estimate at 1,600 to 2,000 per year with over 500, each year, requiring hospitalization.

To put these figures into perspective, mortality from head injury has exceeded the cumulative number of battle deaths inclusive of all wars from the founding of the republic. Head Injury is sometimes referred to as the silent epidemic.

To compare this with another National health problem; from 1980 to November 1991, there have been less than 250,000 diagnosed cases of AIDS in the U.S. (From statistics collected from the Center for Disease Control, as reported

1-27-93
SB-145

by the Mont. Dept. of Health.) compared to two million head injuries per year. I report this, not to imply that other health problems are not important, but to help you grasp the magnitude of the Head Injury problem.

PROFILE OF HEAD INJURY SURVIVORS

-Males are more likely to suffer T.B.I. than females
-Young men between the ages of 15 and 24 have the highest rate of injury.
-Traumatic brain injury is the leading killer and cause of disability in children and young adults.
-Child abuse accounts for 64 percent of infant head injuries.
-The survivor of a T.B.I. typically faces five to ten years of intensive services, costing in excess of $4 million, including direct and indirect cost of medical treatment, rehabilitative services, and loss of income.
-Since many head injury victims are young, many do not have health insurance or their insurance is inadequate.

Injuries that preclude head trauma victims from participating fully in society are as varied as the functions of the brain. Depending upon which areas of the brain are damaged, a head injury can produce losses in movement, sensation, intellect, behavior, and memory. Head injuries may lead to death, coma or long-lasting disabilities, such as paralysis, epilepsy, dementia, or loss of vision.

NEEDS OF SURVIVORS

Survivors of traumatic brain injury have the following needs:

- -Housing. This may be a transitional living facility, nursing home, or apartment. Many live with family or other relatives, which may not always be the best environment.
- -Jobs. This could include vocational training or supported employment.
- -Quality of life and self worth. This may include recreation opportunities, social activities, and support of family and friends.
- -Health care.
- -Rehabilitation. This may include behavior modification, retraining, physical therapy, occupational therapy, speech therapy, or surgery.
- -Advocacy. Someone to put them in touch with available services.
- -Counseling. This could include legal or social.

1-21-93
SB-145

In addition, families need help adjusting to the trauma of having to deal with a family member with the above needs. Often, siblings have problems when one or more parents focus all their attention on a T.B.I. survivor.

Many families are unable to cope, and have many spin off problems, such as divorce, depression and other psychological problems.

Section 3 of Senate Bill 145, proposes a demonstration project to determine appropriate State services and responsibilities.

The Montana Head Injury Association urges your support of this needed legislation.

Thank you for your time and consideration.

Sincerely,

John F. McCulloch

John F. McCulloch, President MHIA
673 MacLaren Place
Belgrade, MT 59714
Phone: 388 6579

WELFARE
EXHIBIT NO. 4
DATE 1-27-93
BILL NO. SB 145

INTERAGENCY HEAD INJURY TASK FORCE REPORT

Executive Summary

The House Committee on Appropriations encouraged the establishment of an Interagency Head Injury Task Force which would identify the gaps in research, training and service delivery and recommend solutions in meeting the needs of the traumatic head injured. At the same time, the Senate Committee on Appropriations encouraged increased efforts among Government agencies in these areas.

The Task Force was established by the Secretary, Department of Health and Human Services in early 1988. He appointed as its chairman, the Director of the National Institute of Neurological Disorders and Stroke, National Institutes of Health, and included representatives from thirteen Federal agencies. In carrying out its activities, the Task Force defined head injury as traumatic brain injury (TBI). Its knowledge and understanding of TBI were enhanced through the solicitation of public comments during a two-day public hearing. These findings, along with the activities of its three subcommittees, provided the background and framework for examining the problems and addressing their solution.

Current data indicate that someone receives a head injury every fifteen seconds in the United States. A conservative estimate puts the total number of such injuries at over two million per year with 500,000 severe enough to require hospital admission. 75,000 to 100,000 die each year as a result of TBI and it is the leading killer and cause of disability in children and young adults. Among those who survive, TBI results in 5,000 new cases of epilepsy each year and is the principal cause of permanent brain damage in young adults. Related medical and legal bills can become astronomical, often leaving families with near or total financial ruin. The economic costs alone approach $25 billion per year.

There are no words to express the fear, anguish, and despair of TBI victims and their families. The problems resulting from severe impairment of a family member are compounded by the frustrations of trying to work within medical, legal, and social systems that for the most part are not equipped to deal with either the immediate or long-term consequences of TBI. Indeed, many patients and their families find that the present system discourages efforts toward self-sufficiency and provides no support for the family as a unit.

The most important of all the activities needed to improve the prognosis of the traumatic brain injured is the establishment of regional centers of excellence linked to a network of local facilities. Additional research is needed in every aspect of the problem--prevention, basic biology, clinical and rehabilitation intervention, and community services. Specific measures need to be aimed at increasing local community programs of emergency care, acute care, rehabilitation and long-term care. Financial and legal reforms are also essential to ensure availability and access to TBI care. Importantly, the Federal role should be that of providing coordination and assistance.

SENATE HEALTH & WELFARE
EXHIBIT NO. 5
DATE 1-27-93
BILL NO. SB145

Madam chairman and members of the committee

My name is Lorie Wallace. I live in Helena with my husband and three children. I work part time as a retail merchandiser and I am very lucky to be alive.

Seventeen years ago, January 29th 1976, a day after my eighteenth birthday, my life changed. An eighteen year old drunk driver was traveling at a speed of 80 mph up central avenue in Great Falls. I was attempting to go across 19th street in my car. Due to his excessive speed he hit me before I even saw him. He hit my car on the passenger side. The impact was so great that my car went head on into a tree. As a result of the collision, I was comatose for 3 days and remained in a semi-coma for 21 days. I suffered a broken clavicle, a 5 inch crack in my skull and a severe blow on my left cerebellum which left me partially paralysed on my right side and very uncoordinated.

After a head injury a person whole life changes. The so called dear friends I had before the accident were no longer there for me. If they had only known how much I hurt inside, would of they been there for me? The emotional hurt was as severe to me as the pain from the accident.

Many people I know, have asked, "why are you so involved with head injuries?" When I explain to them that I have a head injury they are very surprised. There are a few that after I tell them back away and do not want anything to do with me. Before, that used to hurt, but now I have realized that they are very ignorant. A Head Injury is not contagious. It has taken many years of hard emotional, physical work and a lot of patience from my family and new friends to get where I am at today.

After I left the hospital, there was no help available for me. The first help that I received was seven years later when I moved from Great Falls to Helena with my family. It took many phone calls for any place to even come close to helping a person with a head injury. There are many programs developed to help the person with a handicap, but very few of those programs are able to help the real needs of a TBI (traumatic brain injury)survivor. Many people fail to realize a TBI survivor needs a different approach to dealing with their disability.

No I did not ask to be hurt and the accident was not my fault. But it did happen and yes I do have to go on with my life. But it is awfully tough learning how to do things before the accident and then having to learn things over again after. I mean from day one, when we were first born, walk, talk, etc, I even had to learn how much toilet paper to use after I went to the bathroom and also how to tie my shoes again. Oh, how embarrassing it is when your 18 years old.

People do not understand why we have to learn everything back over again when we look fine. Well, you know when there is something really important on a chalk board, computer or a piece of paper and it is erased or destroyed, it takes time to get it back. Well, our brains were destroyed and erased so we have to find some way to put it back in there. It might not be the same and it might take longer but it will still end up to be the same result if You give us a chance.

It takes a lot of courage to live a life and I am glad to be alive.

You never know when a head injury might happen to you or your loved ones.

By helping us you are helping yourself.

Thank-You!

MaDam Chair~~man~~ + Members of the Committee

My name is Greg Engellant and I am recovering from a traumatic brain injury.

On September 20, 1982 I was in a farming accident and received a blow to the left temperal lobe of my brain. I was unconscious for 6 weeks and two days and in the hospital for a 1½ year I could not walk and was using a wheel chair when I returned from Craig Hospital. I do not remember anything when I was in the hospital. Some people thought that I would not live. As you can see I have recovered from an accident that even though it has left me with a permanent disability. I feel very lucky to be here today to tell you that I am one of the lucky ones who has seen a variety of success in my life. I am thankful for the opportunity to be able to share with you my experience. Initially I could barely dress my self and needed a lot of assistance from my family. I remember that I went through a lot of depression and anger over what had happen to me. I did not have control over my temper and was frustrated with the fact I couldn't remember things very well. I had to face the fact that I would probably never be able to use my college education FOR MY WORK. My dreams would have to be smaller and my life would take a slower pace.

I eventually moved back to Montana and started receiving services from Helena Industries. They helped me to prepare myself for employment. I currently work for the Department of Administration I am a File Clerk FOR the Classification Bureau and have a job coach who assists me in organizing my work activities. Through a lot of persistence and perservance I am now able to work independently most of the time with out direct supervision.

SENATE HEALTH & WELFARE
EXHIBIT NO. 6
DATE 1-27-93
BILL NO. SB 145

Without there help I do not know if I would have had the opportunity to feel what I do today. I feel a personal accomplishment in being employed and to be able to help pay my way by being competitively employed. The ability to work has been a major part of my life. Equal to having a job is being able to live independently. I could not have done that with out having someone work with me at home to help organize my life and assist me in remembering all the daily responsibilities that keeps my life organized. After the accident I moved home for awhile and was unable to maintain the smallest of task such as cleaning and organizing my apartment, paying bills, cooking meals, doing laundry and all the other responsibilities that are important in my life. Through the help of having a independent living Counselor I was able to start the climb up hill to re learn over again all the independent living skills I took for granted. I now have my own apartment and feel I have regained some of the skills I once had. I Also use a memory book to help me maintain my independent living skills By Delouping a WeekLY Routine of

None of this could have happen without the appropriate and timely services to get me on the right track. I would not be speaking to you today without the help. I feel very lucky in what I have accomplished. I am very thankful for the help.

Those of us without these services would have lost part of ourselves with the injury. I would appreciate if you would consider passing ~~House~~ Senate Bill 145. ~~Thank you~~

~~So [illegible] Head Injury Survivors may [illegible] the same opportunity [illegible] fortunate [illegible] enough to enjoy~~

SENATE HEALTH & WELFARE
EXHIBIT NO 7
DATE 1-27-93
BILL NO SB 145

Senate Bill: 145
Traumatic Head Injury Trust Fund Bill
Sponsor: Mignon Waterman

Testimony of Marie Beveridge-Sloan, Helena, 442-6905

My name is Marie Beveridge-Sloan and I'm here to testify on behalf of SB145.

My son, Edward Beveridge was 26 years old when he sustained a traumatic brain injury or "TBI" on June 3, 1990. This was the result of an airplane accident. At the time of the accident, Ed was a senior at MSU majoring in electronics and electrical engineering. Our family learned very quickly that the medical profession places much importance, talent, money, etc. on saving the life of the TBI, but little is done to help the survivor and survivor's family in the long term care requirements and recovery process..

I was asked to relate my family's experience and identify areas that might help society cope with the special needs of these individuals.

1) Facilities/housing for the family during the patients hospital stay.

TBI patients who have their families near show an accelerated rate of recovery, thereby, reducing medical costs. The family was committed to doing whatever was deemed necessary to aid Ed in his recovery... For our family, this meant one of us needed to spend five months in Billings - 250 miles from home. I was fortunate that I was referred to the Ronald McDonald house, by non hospital personnel. The Ronald McDonald House is traditionally used by families of cancer stricken children. While these families would take preference, during this particular summer, seven of the nine rooms available were filled with families of TBI patients.

Facilities like these are desperately needed for family members of those who face long term hospitalization or rehabilitation.

2) Legal Protection

After five months of hospitalization and physical therapy and three months at home Ed was ready for an active rehabilitative program geared toward the head injured. The Department of Social and Rehabilitation Services recommended that

Ed be placed at the Bozeman Care Center. I gave the facility and the SRS representatives copies of all his medical records as well as describing his behaviors. After an initial screening, both of these professionals agreed that Bozeman was an appropriate placement for Ed. The Care Center also asked for all addresses that Ed was familiar with in Bozeman because they expected him to wander, Within one day of my leaving the facility, Ed was jailed for leaving the facility. Dr. John Deming tried to have him declared insane and placed in Warm Springs. Many hours passed before our family was notified. Ed was not appointed an attorney until 24 hours after he had been incarcerated and a few hours before his "sanity" hearing. During that hearing, the judge did not deem our family competent to have Ed released into our care even though I had been his primary care provider since leaving the Billings facility and we had legal guardianship. There was a second hearing scheduled at this time and Ed was returned to jail. When I later called to speak with Ed at the jail, I learned that Ed was being moved to Warm Springs and that the second hearing had been rescheduled for the next morning. We made numerous phone calls to attorneys, politicians, friends, etc. and at this hearing, Ed was released to us. It is amazing to me that a sanity hearing can be scheduled without notifying the family or the individual's attorney. Had I not contacted the jail on that evening, my son would be in Warm Springs.

It is my opinion that Ed should not have been arrested and held for a sanity hearing. Yet, we've been told that this type of incident is not unusual and many TBI's go from jail directly to Warm Springs.

3) Independent and Transitional Living Center and Activity and Learning Centers specifically TBI Survivors

Social service agencies are equally ill prepared and untrained to deal with the unique needs of the TBI. They randomly attempt to deal with the TBI as they would the developmentally disabled, insane, or the elderly. During the course of Ed's trauma, professionals have recommended placing him in nursing homes, various institutions, group homes for the developmentally disabled, and jail. All of them costly, ineffective treatments for the TBI. Ed is a healthy 29 year old man. He attended college, dated, drove, flew an airplane, was an f-16 radar specialist, and had a future in front of him. He's suffers short term memory loss; he's not insane and he's not developmentally disabled. He would do well in an atmosphere where he could apply those skills that are still intact or learn new, challenging skills which hopefully will lead to employment and independence.

1-27-45
SB-145

Ed also needs an opportunity to be with other's who suffer from a similar injury and are of the same age group...even if it were only for a few hours a day.

I am not willing to institutionalize my son. I feel that this is a costly ineffective approach for Ed. I have asked for respite care...Ed does need some supervision. Every few months I am contacted by the Department of SRS and told that our name has come up for respite care, but that they are denying the request because the elderly and others take preference. It seems remarkable to me that this agency is willing to place Ed in an institution like Warm Springs or a nursing home, but is unwilling or unable to provide a few hours a week of constructive care.

TBI survivors and TBI families need special assistance; this bill will begin to address some of the issues I've raised today. I urge you to vote "yes" for TBI survivors.

Thank you for your time and consideration - I would be happy to answer any questions you might have now or at a later time...I've included my phone number on my written testimony.

January 27, 1993

SENATE HEALTH & WELFARE
EXHIBIT NO. 8
DATE 1-27-93
BILL NO. SB 145

Madam Chair and Committee Members:

My name is Stacy Crockett and I'm from Helena. I'm here to testify in favor of Senate Bill 145. In 1988 I was a senior at Capital High School. I was a straight A student. I was very outgoing and very confident in myself. I had earned full ride scholarships to both of the Universities in Montana. I had also received a scholarship for St Cloud University in Minnesota. My plan for life was to become a Genetic Research Scientist. I do believe in my heart that this would have come true if it had not been for the injuries I sustained when I was hit by a speeder.

The person who hit me, was going 55MPH in a 35MPH zone. He was driving a 4 by 4, 3 Quarter Ton, Ford pickup truck. Three of my friends, and I were in a little Datson car. The car was smashed. One of my friends, the driver, was killed instantly. I was sitting behind her. I sustained major injuries...

My Pelvic Bone had been crushed. My Spleen had to be removed because it was damaged beyond repair. My Liver was damaged. My Kidney was damaged. My Bladder burst. My Lungs had collapsed, which led to a Tracheotomy. The right Temporal Lobe of my Brain had been damaged, which led to left sided weakness, and the most severe, the Aorta Valve to my heart had burst.

A woman had seen the accident from her window, and called the ambulance. When the ambulance arrived, one of my friends and I were not breathing. They were able to get my heart started two times on the way to the hospital. All together my Brain was without oxygen for about 20 minutes. I was in surgery for at least 12 hours the first night. I had Kidney Surgery, Urinary Surgery, and Heart Surgery. From the Surgeons words, I had to be pieced back together.

I was in the hospital from March 30th until the last week of June. The cost being close to 100,000 dollers. This was right after the accident. I've been in the hospital multiple times since then. The last time being 3 weeks in July 1991 for Brain Surgery, costing around 30,000 dollers.But I was one of the lucky ones, I had insurance.

The Brain Damage I sustained was from lack of oxygen, and trauma. This damage has caused short term memory loss, and Seizures. A problem that I will be dealing with for the rest of my life, because the entire damaged area could not be removed.

Living life without a memory, is very hard! I wake up every morning and have no recall of the day before. I can be talking, and forget what I am trying to say. I park my car, and go into the store. When I leave the store, 5 minutes later, I can't find my car. I need a map for everywhere I go, no matter how many times I have been there. I carry a notebook with me everywhere I go, just to write down what I've done, or who I've seen. When people talk to me, I ask them to talk slow so that I can write everything down. I forget if I've just worn that shirt, or not. I can't remember who I've talked to on the phone recently. I meet people, and they recognize me, but I have no recall of them. I could go on, and on. This disability I have, effects every part of my life.

Divi Mo
of Vehic

In 1991 there were 2668 accidents as a result of a speeder, these accidents occur every day in Montana. Something has got to be done. It was a year and a 1/2 before I could be ready for services. When I was ready, there were none. There was only Sheltered Employment, which is not somthing a Brain Injured person needs. We need community based programs, such as transitional, and Independent Living Programs. Programs to teach financial skills, cooking, insurance processing, and assistance with community resources, programs which can help us return to being productive members of the community. Here again, I have been lucky because I have family to help. Many people have no other help. This Bill,Senate Bill 145, that is being presented to you today, is a wonderful way to provide the much needed Community-Based Services to people with Traumatic Brain Injury, and a wonderful incentive to reduce the number of accidents as a result of a speeder. I'll close my speech by saying if I don't keep all the paper work on what I've said today, and who've I've talked to, then tomorrow I may not even remember being here. That's my disability.

Thank You.

Stacy Crockett

Stacy Crockett

January 27, 1993

SENATE HEALTH & WELFARE
EXHIBIT NO. 9
DATE 1-27-93
BILL NO. SB 145

To: Senator Eck
Members of the Public Health, Welfare & Safety Committee
From: Cathy Ward, Spouse
of a victim of Traumatic Brain Injury
Re: Senate Bill 145

My name is Cathy Ward. I am Executive Director of the United Way of Lewis and Clark County. I'm here to ask for your support of Senate Bill 145.

On June 9, 1987, I arrived home from work to find my 45-year old husband John sprawled on the kitchen floor. He said, "call an ambulance, I've had a stroke or heart attach". Within hours a CAT-scan revealed an aneurysm and he was taken to St. Patrick's Hospital in Missoula via helicopter. He had lapsed into a coma and wasn't expected to live 24 then 36 hours. Surgery was performed August 19th and he was then transferred to Missoula's Community Medical Center for rehabilitation. Two days after the transfer, he had a shunt inserted in his head. On October 12, he was put in the Rehab Unit which costs more than $20,000 per month. Since our health insurance was limited to $20,000 per year for rehabilitation, I brought John home on November 6, after the one-month period had expired to avoid the risk losing our home. With the help of our two daughters, family, friends, some of John's former students, St. Peter's Hospital outpatient services and West Mont, he was well cared for at home. In mid-January, John became ill and required more surgery followed by pneumonia.

Throughout this time, we watched this man be transformed from a self-sufficient, independent, hard-working professor at Carroll College where he served as Head of the Psychology Department for 17 years to a person totally dependent upon others. And after we came home, we found no appropriate or affordable services outside hospitals or rehabilitation settings.

In order to keep my job, I took John to a rest-home where they were beginning an adult day program. He was their only client and after two months, they said it wasn't working. John was no longer able to keep track of things. He got turned around, sometimes lost. He wore hearing aids in both ears, specially ground prisms on his glasses, had periodic seizures and talked in a whisper as a result of the brain injury.

In June 1988, I found a couple who were willing to care for John in their home. They also run a regular day care. That bothered me but it did turn out to be the best placement I could find. They treated John with dignity and respect, provided activities to stimulate his injured brain and they were affordable.

Since then, we started the Helena Head Injury Support Group and began working with professionals and family members who recognize the need for community-based, appropriate, affordable services for people with traumatic brain injury.

1-27-93
SB-145

TBI is the fastest growing disability in the country, thanks to medical technology. But it has tremendous difficulties for survivors and their families because appropriate services don't exist after hospitalization. Providers for other disability groups provide what services they can. But usually, it is limited to very vew people and it is not appropriate.

My husband died on December 9th -- just seven weeks ago. On behalf of his life and those who continue to work on their recovery, I urge you to support Senate Bill 145.

November 23, 1990
Cathy Ward

HISTORY ON GRASSROOTS EFFORT FOR HI LEARNING CENTER IN HELENA, MT.

June 9, 1987 - John suffered aneurysm & was transferred to Missoula via air ambulance. Drs. Richard Dewey & Henry Gary were in charge & determined the bleed was too great to operate.

August 19, 1987 - Dr. Gary, assisted by Dewey, performed surgery.

August 25, 1987 - John was transferred from St. Pat's to Community Medical Center's Rehab Unit.

August 26, 1987 - Dr. Dewey performed emergency surgery to place a shunt in John's head. John was placed on Medical Floor for recovery

October 12, 1987 - John was transferred to Rehab Floor.

October 30, 1987 - In preparation for his release (we were out of insurance money), Sister Elizabeth from West Mont went to Missoula on 10/26 to determine the kind of home health care you will need when you come home. She will also talk to Sister Mary Sarah Fasbender, John Downs & Tom Hamilton re students providing some respite and/or help with activities. On 10/30, Sister Elizabeth met with our family and friends (Hamiltons and Daryl Dilly) to determine the kind of adjustments the house would need to accomodate John. West Mont provided a bath seat and toilet arms. They arranged for speech and occupational therapy to be done at the house temporarily and later at W.M. About five of John's students from Carroll agreed to work with him on structured activities.

November 6, 1987 - John was reluctantly released & came home. Since he was just learning to walk (had been on his feet less than one week, he spent most of his time in a wheelchair. Friends built a wheelchair ramp on the back of the house to accomodate him. He surprised all of us, however, when he walked out of the bathroom to his chair. He used the wheelchair only one other time - when Kim took him to the Mall. He used a walker for a short time-less than 2 weeks.

November 16, 1987 - began PT at St. Peter's & ST at West Mont. Students provided 1-2 hours at WM working on structured activities. John Kline and Mary Meehan provided additional time helping. Angie, Kim, Chris and me provided afternoon care, depending upon schedules. Thanksgiving and Christmas breaks helped!

January 19, 1988 - John went to PT and ST then to Pioneer Pies with Angie where he had complained of headache then vomited. Angie & Carl took him to ER where he was admitted with BP 200/103. I made appt with Dr. Dewey in Missoula for next day.

1-27-93

January 20, 1988 - John slept part of the way to Missoula. Dr. Dewey was very pleased with his progress since going home. He didn't like the indentation in John's right temple and said the headaches are most likely related to the shunt needing adjustment. Repairing the indentation will also help relieve pressure. Surgery will be scheduled soon.

February 1, 1988 - Met with Chadene Burkhartsmeyer & a nurse from Cooney Rest Home to discuss their Adult Day Program. Angie got a job at St. Peter's and Kim's hours have increased. I need to work more hours too. Have thought about this for some time and while it is very difficult to take John to a nursing home, the reality is that something has to be done. Chadene seems wonderful. Cost will be $20/day or $400/mo. In addition, Carroll no longer provides medical insurance so we will assume that at $202/mo. Also, must pay St. Pat's $3,500 by February 26 -- called TRICO about loan. Mike Harrington working to sell rental -- need to get that monkey off our backs.

February 2, 1988 - First day at Cooney - went OK for John -- not well for me - I cried off and on all day. Dr. Gary called & scheduled surgery for February 9.

February 9, 1988 - Drove to Missoula & met with Dr. Gary. He was disturbed at indentation - said he didn't realize how bad it was. Surgery should help relieve pressure. Admitted John to Neuro Unit and the nurses were great - wrote WELCOME BACK JOHN on chalkboard in his room. Ken Fry (former student) spent more than an hour with us.

February 10, 1988 - 8:00 a.m. - surgery. Helen got in at 1:30 just after I talked to Dr. Gary who said all went well. On Thursday 2/11 John had seizure - with they said was common. He spent night in ICU and was transferred to Neuro Unit in afternoon. Dr. said he may go home this weekend! (I think he looks pretty rough.)

February 12, 1988 - Setback - more seizures and CT scan showed two bloodclots. Emergency surgery scheduled and I was told to call the girls - Dr. said this was very high risk. After surgery John showed very little response & Dr. had little hope he would survive through the night. Another session of thinking of death. The next morning, however, John woke up and knew all of us. Dr. was amazed that he could go through so much and live. By evening he was moved out of ICU to Neuro Unit.

February 19, 1988 - Very slim improvements - weak and listless. He doesn't have the strength or reserves to fight so recovery will take longer. Dr. wants us to transfer him to St. Peter's so he can be closer to family and friends and I won't have to keep traveling. We agreed the other aneurysm will not be operated on. No more surgeries.

February 26, 1988 - Daryl Dilly and I transported John back to St. Peter's where he became worse and developed pneumonia & Drs. McEvoy and Eden wanted to surgically insert feeding tube. After discussing with girls, Tom, Linda, Daryl & Sister Sarah, I cancelled surgery and cried all night -- feeling, again, that he would surely die. On 3/3 he began improving on his own. On March 8, 1988 John came home but by now he barely resembles himself, he is so thin and listless.

March 14, 1988 - Back to Cooney Adult Day Program (he's the only one in the program!). Talked to Chadene about building a "circle of support" to assist John in his recovery and find his potential. She thinks it's a wonderful idea. I talked to Mike Harrington, Daryl, Tom, John Downs and Mary Meehan -- they all said they were willing to help make it work. For the next couple of weeks, I contacted Ken Cole at School District #1 Special Ed; Karen Sexton, principal; Fr. Peoples; MT. State Library, Blind Services for large print books; in an effort to obtain papers John could work on for self improvement. on April 9 Mary Meehan tested John on Comprehension.

April 10, 1988 - John had seizure when we were at Chris's. I thought he was having a stoke as I'd never seen one nor did I know I should expect this. Called an ambulance & he was admitted. Dr. Skinner (on call) had CT & showed no bleed. He thought seriously about transfering him to Missoula but John began to improve. Released 4/12 and is now on anti-seizure medication Tegretal.

April 13, 1988 - Went to Missoula for UW conference but took time to go to Community Medical Center re $27,000 bill I received in March. They insist the bill is correct & I should talk to BCBS. I did so and finally contact Ron Waterman & after several months, the bill was adjusted: Community: $14,000, BCBS: $10,000, Ward's $3,500 (approximate figures).

During this time I also wrote a letter requesting information on Head Injury Programs from United Way communities across the country. The letter was computerized on United Way of America's Human Care Network. Responses started pouring in from all over the country, however, only one in Vermont had a program designed exclusively for people with head injuries. It was held in the basement of a church and offered primarily recreational and social activities. Other communities who responded referred to Rehab Services connected with hospitals which were very expensive. These included transitional living programs, a day program at Sharp Instute in San Diego and outpatient therapy programs. Some responses said stroke victims, alzheimer patients and head injured victims shared similar problems and programs were being developed.

May 8, 1988 - Met with Montana Independent Living Project (Pam) who said they could help some but need medical records. After I had them sent, MILP could offer only bowling which I declined. Students Harva Worm, Mary Meehan and Jeff Gallus continued to see John as often as their time permitted which was a big help. I also contacted Mike Murphy who works for State of Oregon as well as Jim Piazzola - John's cousin, with L.A. County Hospital, John Cole, psychologist outside of San Francisco (former classmate), and Kent Parker, psychologist teaching in West VA. who agreed to let me know of any programs in their respective areas.

May 9, 1988 - Ellen Vogelsang did cognitive evaluation on John (I learned about her from Chadene at Cooney). Then Kim, Mary Meehan and I met with her. She said he has great potential for a comeback and recommended using a Memory Book. Also loaned us a Cognitive Learning workbook which I copied. The "Circle of Support" isn't working -- but I still feel it has potential. I need more time to devote to setting it up but need some guided assistance.

5-2/93

May 20, 1988 - Chadene and I talked about John spending less time at Cooney -- he gets disoriented there, she doesn't have the time to spend with him she feels he needs, and I think Cooney has realized they are not ready for an "Adult Day Care Program". Ellen Vogelsang told me about Greg and Mary Daly who operate a day care and adult day care program out of their home. I called and will see them after my trip to Portland.

May 21-31, 1988 - Getaway trip to Portland. Mike Murphy told me about a facility called REHABILITATION PSYCHOLOGY ASSOCIATES. He learned about them through a psychologist he works with at the State of Oregon. I contacted the Portland Brain Injured Support Group and talked to Marty Friedman about services in Portland. He said RPA is the best nonmedical model rehab facility he knows of and said he has traveled the West Coast searching for programs. He was HI 8 years ago in a rock climbing accident and has recovered well enough to be president of the Portland HI Support Group and serves as an I&R Resource Volunteer at their offices at Good Samaritan Hospital. I told him about my idea of the Circle of Support and he gave me encouragement and lots of information. I visited Good Sam, borrowed tapes and books and talked with the director of the HI Resource Center. Also, made an appointment and visited Rehab Psychology Associates, along with Kathy, Bill & Mike Murphy. Drs. Judy Falkner and Tercialla (Kateen) met with us for 3½ hours explaining their approach to cognitive remediation, along with a tour of the facility. We all agreed to a two-week evaluation at their facility as soon as financial arrangements could be made. It was the first time I felt truly encouraged that I could get some straight, solid answers about John's condition. I need to contact BC/BS as well as TIAA Disability Program to arrange for payment.

June 10, 1988 - In a moment of courage while driving down Fuller at 3:30 p.m., I went to see Alan Cain, president of BC/BS. Persistence got me through the door, and he was very attentive and seemed genuinely interested as I explained John's ordeal, the outstanding bills, my disappointment in Community Medical Center, Rehab Psychology Associates, why I wanted John to go there above any other "medical model" rehab facility and how financially beneficial it would be for them. I explained my frustration that they would spend an additional $20,000 for John to go back to a medical rehab facility, be put back into a hospital bed and wheelchair, be away from family except for weekends and receive ST, OT and PT for about one hour each day. I said that he doesn't need a "hospital facility", he needs help during the day to help him with cognitive deficits and that help is available for ten days at 8 hours per day with recommendations on how to continue a program at home for $2,500. He said he would put in an order for Rehab Psychology to be reviewed.

June 20, 1988 - During my Dad's last and cousin Richard's first visit here, went to Greg and Mary Daly's house and felt very good about John going there on a daily basis. He'll begin on Monday 6/27/88. He'll also start going to Park Place for an exercise program every Tuesday and Thursday mornings.

July 1, 1988 - Mary Runkle, a nurse from Intracorp - a company who reviews programs for payment by BC/BS, visited us regarding our interest in Rehab Psychology Associates. After 3 hours listening to the background on John, she agreed to contact Drs. McEvoy & Gary and with their approval, she will recommend BC/BS pay for the evaluation. Both did.

August 8 - 19, 1988 - John went through the two-week evaluation at RPA. I was impressed with the one-on-one approach they used. With the exception of the neuro-psych portion which Kateen performed, John was assigned to ________ throughout the day. He tracked number of cues and timed all activities. Even lunchtime included cognitive training, although it was subtle. The activities included physical exercise, computer work, lawnmower engine teardown & reassembly, skill games such as Capsella, electronic boards, checkers, match games, Atari, cards, adding machine - using two, three and four digit numbers, and other activities I didn't observe. Rest periods were given in a.m. and p.m. The activities used were appropriate to the person and their skill level, as shown on the neuro-psych eval. Judy's role, as I observed it, appeared to be one of supervising - from a distance, observing and evaluating cues and timing at the end of each day, then making adjustments for the following day. At the end of most days, I would arrive early enough to talk to Judy. I picked her brain about how we could take what we learned home to Helena. She shared some of the following:

* when a person is discharged from rehab, they are not necessarily ready to return to their former life or former job

* they have probably been discharged because (1) they have run out of insurance or personal funds, (2) they have reached a plateau, and the medical community can no longer keep them

* a cognitive day program does not have to be based on a medical model, but it can compliment and carry on work done in a rehab facility

* persons providing one-on-one in a day program do not need a particular type of degree, i.e., speech, occupational, physical therapy, psychology, social work, etc. However, they do need to be carefully screened and trained.

* it was pointed out how a college could benefit by (1) having a program on campus would create a learning environment for a variety of majors, (2) by allowing practicums at the center (3) both of the above would draw students to the college since HI is one of the fastest growing disabilities in the country, thus providing higher enrollments and additional financing to the college. (4) encouraging HI victims to enroll in special classes designed for them would emphasize (3). Many community colleges now offer some or all of the above.

In March 1989 I visited Ethel Kilkeary-Hofner at Rancho San Diego Community College, 17th @ Bristal Street, Santa Ana, CA 92706 which has a center designed as mentioned. The State of California now has a California Community Colleges Learning Disabilities Program. For more information on how this was started, write to Chancellor's Office, California Community Colleges, Sacramento, California. I have a copy of the Intake Screening & Eligibility Record. Regular students serve as tutors in the Learning Centers. It all started with Cheryl Dunn writing a program for learning disabilities.

* Judy also does not believe in plateaus. Not enough data to suggest that people with HI's cannot continue to learn. Need to keep encouraging, shift tasks, etc., just like any normal person would do when reaching a stalemate.

1-27-93
SB-145

October 11-13, 1988 - John in hospital with pneumonia.

October 18, 1988 - had talked with Tom Hamilton about the future possibility of Carroll being involved or interested in any work with HI survivors. He talked with Judy Falkner and met with Mary Miller from New Medico and wrote some comments (see attached but please return!).

October 19, 1988 - Greg Daly, John and I met with Mary Miller. Program is interesting but $17,000 per month. Out of the question.

October 21 & 22 - Greg, John and I attended HI conference in Billings. Kateen and Marty Friedman attended and demonstrated computer program "Brain Train". There is still reluctance and hesitation on the part of some to accept that computerized training does not generalize to everyday living skills. From what I learned and saw in Portland, it can be very beneficial.

November 1988 - met with John McCrae, MT. Advocacy Program, formerly with Helena Industries and before that, Helena Mental Health Assn. He was excited about my ideas for a Learning Center -- said he has heard many things talked about but nothing that sounded like it could actually be accepted in the community and work! John is not involved with us - yet - but I do hope eventually we will invite him to serve on a committee. He has lots of energy and good ideas. Has worked with many clients -- Greg Engellent among others.

December 5, 1988 - attended Shirley Burner's support group at St. Paul's at 1:30 p.m. Only three people attended.

December 1988 - held meeting with Greg Daly, Shirley Burner, Maria Nyberg and Jim Spall to locate interested people and meet in the evening. We wrote and sent a letter to home health providers, MILP, nursing homes, speech therapists, psychologists, counselors, etc. and asked them to provide interested clients with a post card (we provided) to return to us. Also advertised in the paper for the first meeting to be held January 24 at St. Paul's Methodist Church.

In the meantime, established a "planning committee" to work on establishing some kind of learning center or legislative issues. That group met for the first time on December 13 in the Steamboat Block. Attending the meeting was: Cathy Ward, John Ward, Greg Daly, Ellen Vogelsang, Richard Saravelli & Vicki Volmer(Helena Industries), Linda Hamilton, Maria Nyberg, Tim Harris (MILP), Lynn Winslow (MT. Advocacy), and Ron Caldwell (West Mont). (This is my best recollection - can't find my notes but diary notes 12 in attendance). Everyone agreed it was a worthy venture and wanted to continue to meet on a regular basis which was agreed to become every two weeks.

Others who joined our "Planning Committee" were Dana Smith, Lois Fitzpatrick Pam Smith & Dr. George Archibald. We continued to meet and had some difficult sessions of exactly what our focus should be, some feeling a center without a medical model approach would be nearly impossible, others continuing to push for it. By mid-spring we felt it would be helpful to get input from professionals & began working on a survey. Several meetings were devoted to designing this and it was sent to approx.150 people in October 1989. 47 people responded stating there is a need for specific services for victims of head injury.

February 1989 - The legislature was in session and Maria Nyberg and I testified at the Appropriations Committee Hearing (chaired by Dorothy Bradley). We spoke against reduced funding for people with disabilities and I specifically talked about HI and my personal experience (in less than 3 minutes). After the meeting, I met Maggie Bullock and spoke briefly to her about what our group was trying to do. I also visited Gail Gray who was head of SRS and discussed the same.

During this time, Dorothy Bompart, previously director of Montana Senior Citizens and now with the University of Montana, was working on coordinating a "day of care" for Max Baucus as part of an effort to introduce Max to the need for "Long Term Care". She is Montana's coordinator for the Long Term Care Campaign, headquartered in Washington, D.C. Debra Brison-Betts is Montana's link. Dorothy asked if Max could spend a few hours with John and on February 14, 1989 Max met with John, me, Angie and Greg to discuss our situation and then did one-on one with John for about two hours. The media came at the end of their session. During our visiting time, I spoke of the Learning Center work we were doing and told him that Federal funds would eventually be needed. He seemed impressed but that's his job! He did refer to his visit with John when he spoke at the Governor's Conference on Aging and at a Long Term Care Meeting held in Missoula in May - the latter we attended. He came up to John and introduced himself again. I have since written to him, thanked him and referred to Jim Brady who was then the Honorary Chairperson of the National HI Foundation.

April 1989 - I attended a conference in Portand entitled "Rehabilitation Without Bankruptcy: Low-Cost Head Injury Rehabilitation" held at Emanuel Hospital and sponsored by Portland Family Head Injury Support Group. The conference included a resource manual compiled by Rehabilitation Psychology Associates. (I have the book & agenda if you'd like to see it)

September 1989 - Our Planning Committee continued to meet but this month was taken up with the MT. HI Conference in Great Falls. That session was opening with Marc Racicot so I invited him to attend a support group meeting prior to the conference which he did. By then our meetings had moved to the Library. He seemed to be quite impressed with the people and our efforts. During our first year, the support group had 19 speakers and was attended by 12 - 25 people every two weeks.

I rode to the conference with Cecilia Cowie who had just started a job with the Health Department, working with secondary disabilities. She is partially responsible for the Governor's Forum on Secondary Disabilities to be held December 13 & 14, 1990 at the Colonial. Also spoke to Marilyn Spivik, former Exec. Director of the National HI Foundation who was very impressed with what we are doing and agreed that more community based services are needed. (Unfortunately, the NHIF needs funds and the big rehab centers help provide them so that's why there's so much emphasis there. I've heard it said that NHIF is owned by rehab centers--this isn't necessarily a negative remark - just a remark).

1-21-93 SB-145

September 1989 - At the conference, I also met with Dr. Tacke, neuropsychologist in Great Falls and alumni of Carroll, who was impressed with our Planning Committee work and supported what he heard. When I said we would like this to become a model for the State of Montana, he said he would be willing to help us - possibly serve on a committee at some later date. He serves on the MT. HI Advisory Board so we can keep him informed that way.

October - December 1989 - the Planning Committee continued to meet but moved to West Mont -- with some thought given to the possibility of becoming a program of either West Mont or St. Peter's Hospital as a way to at least get started. While waiting for our survey results we spent time discussing ways to get started, reviewing materials like "Organizing for Community Change", lots of discussion - kind of like how do we get started without funds, yet how do we get funds without being started. When we did see the results of the survey, we learned a couple of things: 1) it didn't tell us much but 2) it did tell us that 47 professionals agreed services are needed and currently don't exist. We discussed whether or not we should prepare to approach the legislature in 1991; Pam Smith shared her computer search work which she has done a great deal of thanks to her access at the State Library. We learned from one another about St. Peter's expansion into Neurosciences and about supported employment from Dana Smith. Our final assignment in December was to put in writing our thoughs of just what a Learning Center should be.

January - August 1990 - Planning Group members had become: Ron Caldwell, Cathy Ward, Linda Hamilton, Dana Smith, Pam Smith, Maria Nyberg, Ellen Vogelsang and new member, Bob Jahner. We shared information on what a learning center should be and it was suggested we formulate a mission statement and service model, which Bob Jahner agreed to draft. We also gave ourselves assignments to work on Bylaws, Articles of Incorporation, and work on establishing nonprofit status (501C3). The draft by Bob Jahner was first on the list and we were impressed with his skills and insight. It was reworked and meetings were spent proofreading, etc. Ron Caldwell drafted the Articles of Incorporation and, when finalized, those were filed with the Secretary of State in September 1990. The Bylaws took more work, rewording and proofreading, etc. Lots of detail. They also required us to have a board so we elected ourselves and nominated others. They were adopted with Ron Caldwell, president; Linda Hamilton, vice-president; Dana Smith, secretary; and Cathy Ward, treasurer. The first official board meeting was held on September 24, 1990 at St. Peter's Community Hospital. Monthly meetings were agreed upon. Committee's were formed: Program, Funding, and Operational. The Program Committee met with BC/BS in November and found we have much to do before we can expect BC/BS to provide support. The Funding Committee met with Lois Fitzpatrick to gather ideas on how to approach funding sources.

November 1990 - We have filled out the application for the 501C3 nonprofit status and it will be mailed the week of November 25, 1990. An employer ID number has been received from IRS and a bank account has been established at Norwest Bank. No charge as long as fewer than eight checks per month are written.

The Helena Head Injury Support Group is meeting once a month at St. Peter's Hospital and has acquired four new members. There were 15 people at the November meeting.

Exhibit #9 SB-145
1-27-93

lessage from the Montana Head ury Association

eople who have suddenly become involved with matic brain injury often wonder where they can someone who can tell them what to expect. Some they may not be getting candid answers and ers hesitate to ask questions due to their concern r the answers may receive. The simple truth is that one can accurately predict all eventual outcomes. is leaves family members, as well as those who ve been injured, perched somewhere between high oes and deep despair.

he Montana Head Injury Association is always ilable to assist people who have these concerns. MHIA has members throughout the state, many nom have experienced every conceivable kind of tration and uncertainty. Call the MHIA office at -657-2077 or the Saint Vincent Hospital abilitation Center at 406-657-7723. We'll help you e connections with people who can make the erence.

Vhat is traumatic head injury?

here are over 750,000 head injuries each year ch require hospitalization. Traumatic head injury is nsult to the brain, not of a degenerative or genital nature but caused by an external physical e or by internal damage such as anoxia (lack of ygen) or tumor. It may produce a diminished or red state of consciousness, which results in pairment of cognitive abilities and physical ctioning. It can also result in the disturbance of avioral or emotional functioning. These pairments may be either temporary or permanent d cause partial or total functional disability or chosocial maladjustment. Ninety percent of head ries occur as a result of a motor vehicle accident.

What does the brain do?

The brain is the center of our body's control system. e part of the brain controls our breathing, heart beat d circulation. Other parts of the brain control our on, physical movement, memory, hearing and otions, to name a few. The brain is our most vital gan and is involved in every aspect of our body's ctioning.

3. What is a concussion?

A concussion results from a blow to the head which causes the brain to strike the skull. A concussion does not cause any structural damage to the brain, but can cause temporary loss of functioning. Headaches, memory loss and sleep disturbance may be some of the problems suffered after such an injury.

4. What is a contusion?

A contusion is a more serious blow to the brain, which results in bruising of the brain and more noticeable loss of functions. More comprehensive care is required for a contusion. Follow-up treatment and evaluation are required on a regular basis.

5. What is a skull fracture?

A skull fracture results in damage to the skin and bone of the skull as well as to the brain itself. The form of medical treatment varies with the location and severity of the fracture. Close observation and follow-up treatment are always required. Many skull fractures result in mild to severe problems associated with daily functioning such as walking, memory, vision, and behavior.

6. What is a hematoma?

The collection of blood in one or several locations of the brain creates a hematoma. A hematoma may be between the skull and the covering of the brain (epidural) or may occur between the membrane covering the brain and the brain itself (subdural). Hematomas may require surgery (a craniotomy) to be performed.

7. What is a coma?

A coma is a deep and extended unconsciousness which requires very close medical care. Close monitoring is necessary to evaluate brain and behavior changes.

8. What happens in the emergency room and Intensive Care Unit?

Most accident victims enter the hospital through the emergency room. The injury is diagnosed and appropriate action is taken. Some patients must go to the Intensive Care Unit (ICU) of the hospital for close, 24-hour monitoring of their condition. Other injuries sustained at the time of the brain injury may require ICU services not necessarily related to the head trauma.

9. What is medical stabilization?

Many head injury patients require time in the hospital for medical treatment such as recovery from surgery, healing of wounds, and setting of fractures. This is known as medical stabilization. Patients may be transferred from the emergency room or ICU, to a medical floor for observation, medical treatment anc the beginning of rehabilitation services such as physical therapy.

10. What happens after medical stabilization?

After the patient has gone through medical stabilization, which can take from several days to several months, there are a variety of directions whi may be taken.

A. The patient may be transferred to a physcial rehabilitation unit within a general hospital, or a specialized rehabilitation treatment center providir skilled nursing care. Physical, occupational, spee cognitive and neuropsychological services can be provided on an intensive basis.

B. Some patients will not require skilled nursing care and may be transferred to a community program head injury patients. These programs offer both inpatient and outpatient services.

C. Some patients will go home with their families an return to the hospital or a specialized outpatient program for their therapies and treatment.

D. Some patients who require extended skilled nurs care will be transferred to a long term care facility

E. Some patients will return home to receive therap and around the clock nursing care.

11. What is rehabilitation?

Rehabilitation is the process which helps an individual reach optimum function by providing a variety of services. Rehabilitation often uses a team concept which includes services of the physicians a well as physical, occupational and speech therapist neuropsychologists, social workers, therapeutic recreational specialists and nurses. In addition, oth professionals in education and vocational training h provide treatment services. However, the most important members of the treatment team are the patient and the patient's family.

GLOSSARY

This is only a partial list of the hundreds of terms and specialties associated with head injuries.

CT Scan: Computerized Tomography (like an X-Ray) is a test which takes a close look at the functioning of the brain by projecting an accurate picture. This test helps locate physical damage to the brain.

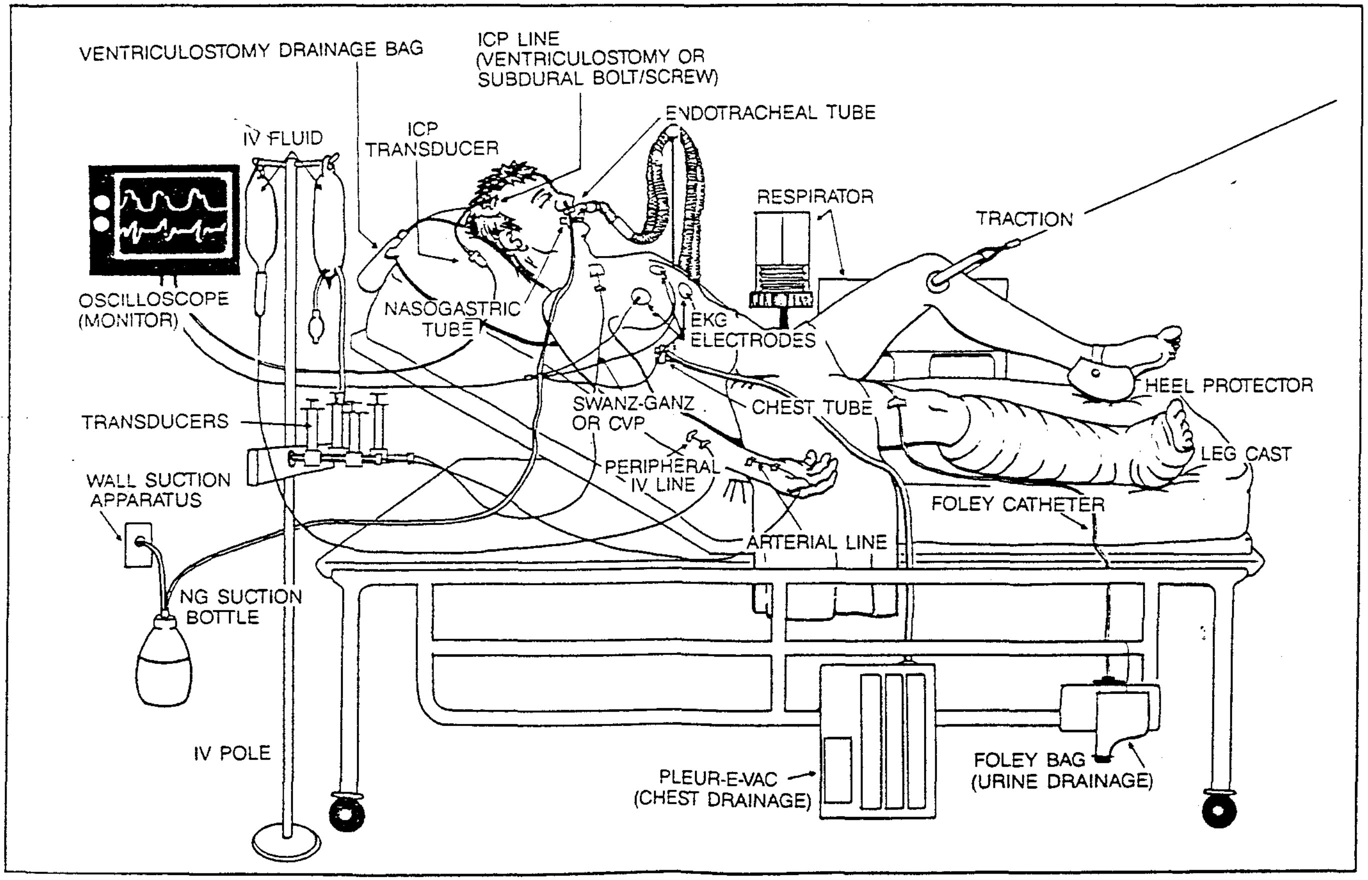
EEG: The electroencephalogram measures "electrical" currents from nerve cells of the brain. This test helps diagnose specific neurological conditions, especially the presence of a seizure disorder.

EKG: The electrocardiogram measures variations in the heart and heart muscle by connecting electrodes to the chest. Patients in the emergency room and intensive care units often are monitored with an EKG to assure normal heart functioning.

ICP Monitor: Intracranial Pressure Monitor indicates pressure within the brain. It consists of a small tube attached to the patient at the skull and then to a monitoring device. The ICP monitor helps assure close observation of activity within the brain which may result in swelling of the brain.

Medical Social Worker: A professional who helps arrange services and programs for the patient and family by communication between other professionals, insurance payer, patient and family. The Medical Social Worker is instrumental in discharge planning.

Neuropsychologist: A specialist involved in evaluation and treatment in the functional behavioral aspects of rehabilitation. The Neuropsychologist evaluates actual brain functioning in relation to real life activities, behavior and social adjustment.



Neurosurgeon/Neurologist: A physician
specializes in the treatment of patients wit
of brain functioning difficulties. The surgeo
perform brain or spinal cord surgery when

Occupational Therapist: A professional
purposeful activity in the treatment of phys
impaired individuals and helps them achie
optimal functioning. The following areas ar
and addressed in the treatment of the brai
person as appropriate: self care skills/ cog
perceptual re-training; sensory stimulation;
fabrication; upper extremity gross and fine
activities; practical community skills such a
vocational training, money management a
visits to adapt physical environments to sp
needs.

Physiatrist: A physician specializing in ph
medicine and rehabilitation is involved in t
evaluation of physical functioning of the b
injury and during the patient's rehabilitatio

Physcial Therapist: A professional who e
and treats the head injured patient for neu
deficits to maximize the patient's return to
activities. Interventions include posturing,
equipments, therapeutic exercise, motor p
activities, transfer and gait training.

Speech-Language Pathologist: A profes
evaluates and treats disorders of compreh
reading, memory, orientation, oral-motor f
writing and cognition which may be prese
closed head injury.

Content provided by the Michigan Head Inju

The Montan
Head Injury
Association,

Exhibit #9
1-27-93
SB-145

Fact

- Every 16 seconds a head injury occurs in the United States.
- 140,000 persons die annually from head injuries.
- 50,000 to 70,000 persons annually are left with intellectual and behavioral deficits precluding return to regular life.
- Two thirds of all persons sustaining head injures are under 30.

What is head injury?

Head injury is a traumatic insult to the brain resulting in temporary or permanent cognitive, physical and behavioral/emotional changes. The most common cause of head injuries is automobile accidents. Other contributors are falls, sports injuries, tumors, strokes and situations temporarily interrupting the oxygen or blood flow to the brain.

Head injuries are classified as either "penetrating", where an object has pierced the skull or "closed head injury", with no open wound to the brain. Loss of consciousness (a coma) may occur and last from a few minutes to weeks, or the injured person may not experience any loss of consciousness. A head injury without loss of consciousness may even initially go undiagnosed with the injured person later encountering significant problems trying to resume normal life.

Coma usually indicates extensive damage to the brain. Usually, the longer the individual is in a coma. the lengthier the anticipated rehabilitation process. Regardless of the source of the injury, symptoms vary in type and severity for each individual depending upon the degree of the injury and which particular area of the brain is damaged. Each part of the brain controls specific functions of the body such as vision, physical movement, speech, memory and emotions. Damage from the injury may be localized and affect only one function, or it may be diffuse and affect several functions at once.

Characteristics

Just as each individual is unique, so is each head injury. Physical disabilites, impaired learning and personality changes are common. Frequently reported problem include:

physical

- •speech
- •hearing
- •paralysis
- •vision
- •lack of coordination
- •seizure disorder

cognitive impairments

- •concentration
- •attention
- •perception
- •planning
- •communication
- •writing skills
- •short term memory
- •long term memory
- •judgement
- •sequencing
- •reading skills
- •orientation

behavorial/emotional changes

- •fatigue
- •anxiety
- •low self esteem
- •restlessness
- •agitation
- •mood swings
- •excessive emotions
- •depression
- •sexual dysfunction
- •lack of motivation
- •inability to cope
- •self centeredness

What is coma?

Coma is defined as a prolonged state of unconsciousness. A person in a coma does not respond to external stimuli. There is no speech, the eyes are closed and the person cannot obey commands.

What causes coma?

More than 50% of the coma cases are due o trauma to the head or circulatory isruptions in the brain.

How long does a coma last?

Coma can last from hours to days, epending on the severity of the brain amage. It is possible for a person to remain a comatose state for months or even ears. A person may eventually open their yes, but if they remain unresponsive, they ould be in what is termed a "vegetative tate."

an medication help?

Presently, there are no known medications at will shorten the length of coma. There e some medications that will be used to epen the level of unconsciousness while hers will be used to temporarily paralyze e body.

hat is it like to be in a oma?

People who are in a coma cannot obey mmands, but they may respond to touch. response to pain, coma patients may move or groan, but in general they do not recall the pain. Some people in a coma may appear to hear and understand by squeezing a hand, sucking, responding to touch, or calming down when a familiar voice is heard. Since most people in a coma cannot recall the period of unconsciousness, it is not possible to determine if comatose people can actually hear and understand. A good rule to follow is to talk to and about the person as if he or she could hear and understand you.

The following scale is often used to classify levels of awareness and functioning following a brain injury. People with head injuries may not go through all of these phases.

Rancho Los Amigos Hospital
Scale of Cognitive Functioning

1. No response
Patient unresponsive to stimuli.

2. Generalized response
Patient reacts inconsistently and nonpurposefully to stimuli. Responses are limited and often delayed.

3. Localized response
Patient reacts specifically but inconsistently to stimuli. Responses are related to type of stimulus presented, such as focusing on an object visually or responding to sounds.

4. Confused, agitated
Patient is extremely agitated and in a high state of confusion. Shows non-purposeful and aggressive behavior. Unable to fully cooperate with his treatments due to short attention span. Maximal assistance with self-care skills is needed.

5. Confused, inappropriate, non-agitated
Patient is alert and can respond to simple commands on a more consitent basis. Highly distractable and needs constant cueing to attend to an activity. Memory is impaired with confusion regarding past and present. The patient can perform self-care activities with assistance. May wander and need to be watched carefully.

6. Confused, appropriate
Patient shows goal directed behavior, but still needs direction from staff. Follows simple tasks consistently and shows carryover for relearned tasks. The patient is more aware of his/her deficits and has increased awareness of self, family and basic needs.

7. Automatic, appropriate
Patient appears oriented in home and hospital and goes through daily routine automatically. Shows carryover for new learning but still requires structure and supervision to ensure safety and good judgement. Able to initiate tasks in which he has an interest.

8. Purposeful appropriate
Patient is totally alert, oriented, and shows good recall of past and recent events. Independent in the home and in the community. Shows a decreased ability in certain areas but has learned to compensate.

What happens to the family of the head injuried

The impact of a head injury on a family is dramatic. The family will be faced with tremendous stress while making decisions and adjusting to the trauma.

What feelings do families experience

Guilt - a feeling that something could have been done to prevent the injury from occurring.

Denial - a refusal to believe what is being said or reported by the doctors or nurses.

Anger - a strong emotion that is often vented at the doctors, the person who caused the injury, yourself, or even God.

Shock - a sense of disbelief or unreality.

Signs of stress

The stress placed on the family of the head injured is tremendous. Each individual and family will handle and cope with stress differently. The signs of stress may include the following: inability to sleep, poor appetite, lack of interest in personal care or appearance, a strong sense of guilt, reduced self worth, loneliness, excessive use of drugs or alcohol, forgetfulness, or an inability to understand things that are said. When stress builds seek support from friends, clergy, and the medical staff caring for your head injured individual.

Seeking information

There may be times when you and your family become frustrated. If you have questions, write them down and keep asking them until you get an answer. It is suggested that you jot down the responses to your questions so that you can share the information with others.

Call the Montana Head Injury Association (406) 657-2077 and get in touch with your local support group. Have a member meet with your family and share you feelings or concerns.

Helpful suggestions for families

- Establish a balance between pushing the head injured person beyond his or h ability to function and not giving enough encouragment.
- Establish and maintain a daily routine.
- Approach the head injured on their good side.
- Use familiar photographs of family members, friends, pets, or possessions.
- Speak of familiar names, places, interes or activities.
- Be yourself with the head injured.
- Do not overwhelm or overload the perso with information.
- Provide the individual with ample time to respond.
- Do not present the person with a task tha is too complex.
- Try to reduce confusion in his/her surroundings.
- Talk openly about his/her gains and abilities.
- Communicate with the doctors, nurses, therapists, and the head injured individua

Exhibit #9
1-27-93
SB-145

Head injury can be prevented!!

Many of the head injuries that occur
nually in this country can be prevented.
ich year 140,000 persons die from head
uries and 70,000 persons sustain severe
ad injuries.

A head injury is an insult to the brain
used by an external force. It may impair
gnitive, physical, behavioral and emotional
ictions.

Head injury rehabilitation is a long process
it is sometimes measured in years rather
in months. Many people with severe head
uries face a wide range of lifelong
blems. These problems, in turn, can
imatically effect an indvidual's ability to
independently, care for a family and
rk.

The true extent of a head injury is not
iveyed by numbers. Lives, hopes,
ams, families and friendships are often
ered in the wake of a head injury.
search, rehabilitation, public awareness
d PREVENTION can help to lessen the
nber of head injuries in our society.

Prevention is the key

- Always use seatbelts when driving or riding in an automobile.
- Always make sure that young children are in approved infant and child restraints while riding in automobiles.
- Do not DRINK and DRIVE
- Do not smoke and drive. The amount of carbon monoxide generated by smoking in the car with the windows closed can impair a driver's reaction time and contribute to auto accidents.
- Wear protective helmets when participating in sports such as bicycling, motorcycling, boxing, mountain climbing, football, hockey, horse riding, etc.
- Know the depth of the water before you dive. Most backyard pools are shallow. In ponds and lakes, rocks and other submerged objects may not be visible - always investigate before diving.
- Prevent falls around the home by using firmly anchored ladders.
- Keep stairways CLEAR of debris.
- If caught in a thunderstorm seek shelter indoors or in a closed car. Get away from water, stay away from tall trees and avoid exposed metal objects such as bicycles, golf clubs, and fences.
- When engaging in any sport, learn the rules, wear proper safety equipment and recognize your own limitations.
- Wear protective helmets and other safety equipment on the job to prevent head injuries especially on jobs such as construction work.
- Do not leave toddlers unattended in highchairs, buggies, strollers, or by open, unguarded windows.

The best protection against head injury is prevention!!

Jack Guyer
1120 Hiberta
Missoula Montana

SENATE HEALTH & WELFARE
EXHIBIT NO. 10
DATE 1-27-93
BILL NO. SB 145

January 27, 1993

TESTIMONY

SENATE PUBLIC HEALTH COMMITTEE

My name is Jack Guyer. I live in Missoula Montana. I started work at age 19 in the Missoula Sawmill. I worked for 16 years when I came in on my shift as a boiler engineer and was told to go up and help the millwright to unplug the ash hopper. As I was going up to the ash hopper one of the millwrights turned air on. The ash hopper and the platform turned into a ball of fire. I dove off a 12 foot platform on fire. After the accident, I was unable to move my eyes from side to side. I went into the doctor on a regular basis but they were not able to find what was wrong with me. Ten years later, I had an MRI at Dartmouth Medical School and they discovered one third of my brain was covered with lesions.

Do to the lack of knowledge regarding brain injury, doctors were unable to give a proper diagnosis. Since the accident, I have lost several high-paying jobs because I was unaware of my eye problems and cognitive deficits. These deficits interfered with my communication skills resulting in poor inter-personal relationships. I feel senate bill 145 would help persons with brain injuries to receive service and treatment necessary for their rehabilitation. Thank you.

SENATE HEALTH & WELFARE
EXHIBIT NO. 11
DATE 1-27-93
BILL NO. SB 145

Tom Gale
3200 Stevens Avenue
Missoula, Montana 59801

TESTIMONY
FOR THE SENATE PUBLIC HEALTH COMMITTEE

MY NAME IS TOM GALE. I LIVE IN MISSOULA, MONTANA. I AM A SURVIVOR OF TRAUMATIC BRAIN INJURY. I WAS CROSSING THE STREET AND WAS HIT BY A DRUNK DRIVER GOING 55 MPH IN A 25 MPH ZONE IN DECEMBER OF 1980.

IN THE LAST 12 YEARS, I HAVE HAD MANY MEDICAL, REHABILITATION AND PSYCHOLOGICAL, TREATMENTS. I HAVE BEEN IN PILOT PROGRAMS EMPHASIZING JOB PLACEMENT AND COGNITIVE RETRAINING. EACH OF THESE PROGRAMS HAS OFFERED MANY BENEFITS TOWARD MY RECOVERY.

I WOULD NOT BE WHERE I AM IF NOT FOR PHYSICAL THERAPY, OCCUPATIONAL THERAPY, SPEECH THERAPY, PSYCHOLOGICAL SERVICES, MEDICAL SERVICES, AND INDEPENDENT LIVING SERVICES, AS WELL AS VOCATIONAL REHABILITATION-CONTINUING WITH VOCATIONAL TRAINING TO FIND A JOB. IN FACT, I WOULD NOT BE LIVING INDEPENDENTLY WITHOUT THESE SERVICES.

SENATE BILL 145 WOULD CONTINUE TO HELP ME AS WELL AS OTHER PEOPLE GET THE SERVICES THEY NEED TO LIVE A NORMAL LIFESTYLE.

THANK YOU FOR YOUR TIME.

Jason E. Burrell
708 S. 6th W. APT #3
Missoula, MT 59801

SENATE HEALTH & WELFARE
EXHIBIT NO. 12
DATE 1-27-93
BILL NO. SB 145

TESTIMONY FOR

THE SENATE PUBLIC HEALTH COMMITTEE

My name is Jason Burrell. I am a Traumantic Brain Injury survivor who was struck by a drunk driver while I was a passenger on a motorcycle.

I lived in Phoenix, AZ and spent 6 months comatose in a hospital there. I was still in a coma when I was transferred to Missoula Community Hospital where I received rehabilitation services for 9 months.

Then I was discharged to a rural community of Libby, MT where there are no comprehensive services. I only received physical therapy.

I moved to Missoula where I have used many services including Vocational Rehabilitation and Job Placement through WORC CENTER. I have 4 jobs and am making out very good on my own.

I joined a head injury group through Summit Independant Living Center. We are very concerned that Senate Bill 145 be passed, so that Traumatic Brain Injury will have a legal definition.

Thank you for your time.

SENATE HEALTH & WELFARE
EXHIBIT NO. 13
DATE 1-27-93
BILL NO. SB 145

JANUARY 27, 1993

Madam Chairman and members of the committee:

My name is Brenda Rasmussen. I live in Missoula and am a survivor of a Traumatic Brain Injury. Ten years ago last September, I was involved in a single car accident that has given me the right to speak to you on this subject.

Why do we need a definition of Traumatic Brain Injury in Montana law? We currently are pigeon-holed into someone else's definition. The 2 options available to us are:

1) mentally incompetent or,
2) developmentally disabled.

I think I speak for all Survivors of TBI when I say, neither of these definitions is a correct definition or description of me or my disabilities. I have become a tax-paying citizen again, and I care for and support my child as a single mother. We are not on welfare nor AFDC.

How? How have I managed, just barely sometimes, to remain off the welfare rolls of this state? Well, it hasn't always been so. When I lost the federal job that I had been trying, unsuccessfully, to keep, 5 years ago, and since I had failed to find work, any kind of work that would give me enough hours to put a roof over my head, I resorted to welfare. This all happened when I was trying to do it "all on my own."

"It wasn't until I had fully accepted my disabilities, my Severely Disabled status, that I was able to get the kind of help I needed. I need a job coach, an employment specialist, a job trainer..."

I am quoting from my book, MY JOURNEY TO HOPE.

Several of the people I am working with now tell me that if I would have only had a coach for my federal job, I probably would not have lost that job. I have held 7 jobs since my injury; everything from natural resources technician to water rights clerk, janitor, shrink-wrapper, chief air-spacer, file clerk, and finally to office clerk and bookkeeper's helper. Now, I truly am a success story due to the help and support of my job coach, speech therapist, and other medicaid optional services I have received.

Please DO pass this bill, restoring our dignity and making it easier for those of you (meaning "you" in the general) who will be sustaining Traumatic Brain Injuries in the future, to get the help needed. Please DON'T "cut the legs off" (pardon the pun) those who, like me, want to get back into the mainstream of life, by cutting out or scaling down the medicaid optional services.
Thank you for your time.

SENATE HEALTH & WELFARE
EXHIBIT NO. 14
DATE 1-27-93
BILL NO. SB 145

Beckie Lester
545 Livingston Ave.
Missoula, Montana 59801
543-4373

Madam Chairman and members of the committee,

My name is Beckie Lester. I live in Missoula Montana. I am here today to support Senate Bill 145. I am a survivor of Traumatic Brain Injury. I was in a automobile accident 6 years ago. I was hit by a police car that was involved in a high speed chase. The car they were chasing was going 83 mph on a major city street. Two out of the three persons in my car now suffer with Traumatic Brain Injury. I was very fortunate that I was in the position to get all the medical help I needed to help me cope with the limitations I now have. I will be returning to college in the near future. I will not be able to complete my degree in elementary education because of the damage I have, but I will be successful in another field with the help of the all the professional I am working with. I will be a contributing member of society.

My passenger has not been as fortunate. She could not afford any of the therapy needed to help her learn how to compensate for the parts of her brain that were damaged. Because of the lack of medical intervention, she now also suffers from psychological impairments. Without the present services, people such as myself, and others, will not have the opportunity to reach their potential. I thank God that I was able to get the help I needed. Thank you for listening and for your time.

SENATE HEALTH & WELFARE
EXHIBIT NO. 15
DATE 1-27-93
BILL NO. SB 145

Sandra N. Lehmann
1260 Lena Lane
Missoula, Montana 59801

January 27, 1993

TESTIMONY

SENATE PUBLIC HEALTH COMMITTEE

Madame Chairman, and members of the committee, my name is Sandra Lehmann, I am a survivor, with residence in Missoula, Montana.

I address you, also, as President of the Missoula Chapter of the Montana Head Injury Association, which also serves Lake, Mineral, and Ravalli counties, and I represent many who could not be here, due to their physical incapabilities.

I am speaking to you today, to offer my support for the proposed Traumatic Brain Injury Legislation, and accompanying Trust Fund Proposal, known as Senate Bill 145, as sponsored by Senator Waterman.

Through no fault of my own, but due to the carelessness of another driver, traveling too fast for conditions, I acquired a closed head injury in December of 1988. It has taken me four years to recover both physically and emotionally, to attempt returning to the productive work force. My purpose, here today, is not to involve you with my personal cross, but rather to help you to better understand why this legislation is necessary.

Without a legal definition of Traumatic Brain Injury written into law, this population is often relegated to multi disability services which are not designed for our rehabilitative needs, which often require 24-hour monitoring and transitional living facilities.

This disability crosses all barriers, and no one is immune from its clutches. Traumatic Brain Injury results in life-long changes, requiring minor to gross adjustments physically, psychologically, socially; and financially. Many of these adjustments could be facilitated by a stronger community-based support system, which would include all interventions necessary for independent living. Any diminishing of current services would have a negative impact, resulting in additional nursing home and institutionalized care. As recognized by our federal government's House Report 102-1059, entitled, "Fraud and Abuse in the Head Injury Rehabilitation Industry," .....*less than ten(10) percent of all head-injured people effectively receive treatment under the current health care delivery system.* THIS MUST BE RECTIFIED! It further states, regarding home care and community-based services as an alternative to placement in nursing homes and institutions: *Individualized service models are estimated to cost significantly less, and costs are expected to decrease over time as people become more independent once they return to community settings with supports. Without these important options, the head-injured are forced to be dependent upon their families or live in long-term care facilities, a waste of valuable human and financial resources.* This outcome would certainly not be cost-effective. Working together, as a team, we will make a difference. We ask you to pass this legislation, and take the first giant step toward progress for all of the citizens of Montana, and remember, in an instant, your life could forever be changed. Thank you.

SENATE HEALTH & WELFARE
EXHIBIT NO. 16
DATE 1-27-93
BILL NO. SB145

DONALD MALONE : a success story

Don was a typical forty year old American man with high school and some college education, married with three children, and was working to provide for his family. He had recovered from an oil rig accident in 1975 when he lost his right foot below the knee. No one would know for he had mastered his prothesis as if it were a part of his own body.

Don went to work on July 23, 1983 with no idea his life would be changed forever. That day he experienced a severe head injury caused by a second oil field accident, the derek leg broke and the derek fell on the tin shed in the spot where he was repairing a diesel motor. He awoke after a short coma and many months of post traumatic amnesia to find good motor skills but a total loss of his pre-injury intelligence and memories of his previous life. All of the learned knowledge, life experiences and relationships had been wiped clean from his memory.

Don had to begin life over. He says, "I was reborn in 1984 when I woke up a year after my injury." Don was placed in day care for mentally ill, then a sheltered work shop but neither of these placements were satisfactory. The following year found him facing a divorce, alone, a failure, and on his way to a mental institution when his mother intervened, took him home with her to Sacramento, California, found a doctor, whom was willing to wean him from his seven psychotropic prescribed drugs which enabled him to function better. As soon as he could live independently with only guidance he returned to Montana to live with his aunt and be near his children. Don would get lost and also had poor judgment concerning daily life choices so was told to return to his mother. He was determined to stay near his youngest son so he purchased a mobile home and moved out on his own. He had a busy schedule with the rehabilitation training program at St Vincent hospital in Billings, education programs at the adult education center and a remedial reading program at Eastern Montana College (EMC). Don also began going to FOCAS (Fellowship for Christian Adult Singles), where he met Ethel. He didn't remember her week to week for eight months then they began meeting and having coffee and talking at the college where she was a psychology student. They became friends and were married on March 22, 1987.

A few months later, Don received news he had reached a plateau and funding for services would cease at the rehabilitation center. Within the next year the adult education center refused him services due to his slow progress and the rapid loss of the skills not used daily. "He would never be able to do more than he could at this point and that wasn't much." He couldn't even follow a conversation with one person. He was depressed and had been rejected with no reason to continue living. Dr. Barbara Walker's reading clinic at EMC was the only service to continue accepting him.

Ethel had her Bachelors degree and was in graduate school for rehabilitation counseling by this time. She had used Don as a model for a rehabilitation program in one of her classes, this therapy model began at home, with Ethel as his therapist. The plan was one in which he would be working with wood. Ethel drew simple line structures on boards and Don cut them out. This was to overcome Don's lack of measuring and spatial skills. A doll cradle was made with Ethel helping to place the corners and guiding each step. All the mistakes kept them warm, burning in the fireplace

Exhibit D16
1-27-93
SB-145

and only successful projects were placed in view of the family and friends because this was a project for success and there was no place for failures except in the fire. Don had had enough failures.

A friend ask if she could get Don to make a doll high chair and was told "no" by him but... the foot of the cradle made a nice seat and by attaching legs and a tray a high chair was delivered to her. This was the last time a "no" was given when objects were ask to be made. To attempt and fail is ok but refusal to try is not. Patterns were then made from plexiglass which Don could trace around, giving him more independence, the next step was mastering the use of carbon paper and tracing patterns. A scroll saw was purchased for the safety factor due to the up and down saw motion instead of a continuous down motion which has the ability to sever fingers.The scroll saw allowed greater independence. Soon, with guidance and help, wooden pieces were put together and Don became the "toy man".

Family and friends have homes filled with Don's wooden objects and art. There are still many things he can not do since the accident in 1983 but he has found one which he was not able to do or was unaware of the ability before his accident. The wood working abilities have given Don recognition, a positive self-esteem, purpose for living, ability to contribute to society, and worth. The processing of sawing on the wood also gave him the ability to communicate better. The hand/eye coordination developed his cognition patterns and he found he could have better conversations and follow others when they were speaking without getting lost. It also developed his attention span, sequence, and thinking processes.

Don accompanies Ethel everywhere and during a Graduate Student Association art exhibit, which sponsored a local artist with post polio disabilities, Don presented the artist with his name made in 2" wood. This gesture brought about a friendship and allowed Don to cut out a few of his drawings with the scroll saw. Later as Ethel was using a dremel tool to sand a small error from a piece on which they were working, Don became engrossed in how it would shape wood. Don had discovered the secret to real success in his world of carving. Two years and much burning was necessary for Don to become a very adapt sculptor and carver. He has developed a unique style and likes doing art with a western flair.

Don and Ethel have presented Don's story to college classes and any other who will listen. Upon the completion of their talk they present the phases and final results of his private rehabilitation program. Don continues to attend the remedial reading classes where he "teaches new teachers how to teach children with reading problems how to read." He has fabricated a new past and with the help of those who knew him before has also added some true facts. He tells of his days during the civil war, the ride with Teddy over the hill, the episodes with Patton, Viet Nam, his time in the Gulf, how to make toys for children who will not have a Christmas if someone doesn't make toys for them, how fortunate we are, and the need to count our blessings instead of losses.

There can be life after head injury! All it takes is someone to believe in you and someone to help find one strength to build upon. Learning and achievement is a continuum throughout life. Don has learned his plateau was just a resting place during the long climb up the mountain of life.

Exhibit II 16
1-27-93
SB-145

HEAD INJURIES HAPPEN TO FAMILIES

Judith A. Falconer, Ph.D.
Rehabilitation Psychology Associates, P.C.

Perhaps it was a phone call that changed your life so dramatically. Although you didn't know it then, many strangers would soon enter your life; most of them would be speaking "medical-ese" and offering confusing and conflicting messages. One of the first things these strangers might have told you was that a person very close to you had sustained a head injury, was in a coma, and might never awaken.

Raised with the belief that medical skill and technology could repair damaged bodies, you assume that the injured individual will recover and resume life with few, if any impairments. Maybe there will be a limp or some scars, but the person will be the same person you always knew. After all, doctors cure people, don't they?

While the injured person appears to sleep, untroubled by the social, emotional and financial problems which the head injury has caused, you make decisions, meet obligations, and survive the acute crisis. Ready or not, willing or not, able or not, you assume new roles and responsibilities. Nothing can prepare you for any of this, but you know it's only temporary. Soon things will be back to normal.

Unfortunately, head injury is unlike other illnesses and injuries. You discover that little is known about recovery and that the few available treatment programs are incredibly expensive and located hundreds of miles away. Physicians providing treatment may simultaneously relay prognoses which range from total recovery to little hope. Or may relay information you neither understand or accept. You don't even know what questions to ask so you don't get answers. You know that the person who existed before the injury has changed but you're not sure how or for how long.

Somehow, you survive the acute period and follow your loved one to a rehabilitation setting staffed by three shifts of professionals, none of whom are related to or knew the patients before they were injured. Compliance with "orders" from white cloaked professionals is usually expected and given by both patients and family members. Everyone sees (or imagines) daily progress in walking, speaking, eating, dressing -- all the activities which used to be routine and taken for granted. It all looks easy, even though garbed in words like apraxia, ataxia, and hemiparesis. Everything will soon be OK.

Eventually the discharge date arrives, although far too often discharge is primarily a financial decision and/or results from a lack of appropriate rehabilitation or long term care facilities. No matter how much time has elapsed, no matter how much progress has been made, you may not feel ready to provide the care, support, and rehabilitation which is needed. But somehow you will. You must. No acceptable alternatives are offered.

Usually, you receive limited guidance about what to expect and what you should and can do to facilitate recovery. The information which you are able to acquire focusses on what is best for the injured individual. Which frequently does not coincide with what is best for you or other family members. Nevertheless, you duck into the nearest telephone booth, don your red cape, wave your magic wand, and become an instant rehabilitation professional. At the same time you remain the spouse or parent of a person who continues to behave in unfamiliar and confusing ways. From now on you will be expected to fill both roles competently and confidently.

The family is often more anxious than the injured individual who is frequently unaware of significant disabling deficits. Even family members who visit the hospital or rehabilitation setting daily usually do not fully understand how drastically their loved one has changed or the impact these changes will have upon the daily life of every family member.

Family members who attempt to follow through on recommended therapy programs in the home setting are rapidly perceived as "bad guys with black hats". What appeared so easy in the hospital becomes a disaster at home. Your husband refuses to bathe, your son becomes increasingly angry and strikes out at everything, your house is full of barriers which make everything difficult. Within days, you are exhausted by trying to do everything you have been told to do, everything that is expected of you.

You persevere because there is no alternative. It's all you can do to get through the day without collapsing. You fight back tears. You control your anger. You cry yourself to sleep. Most of what you have to do is less than enjoyable and you don't have time for any activities you enjoy. Friends stop visiting because they feel uncomfortable. You become more and more isolated. Although you feel guilty, you may find yourself wishing the injured individual had not survived. In fact, the person you knew before the injury did not survive. And, unless something drastic is done, it feels like your family will not survive either.

The recommendations which follow may ease your way somewhat but they are only recommendations; they are not engraved on stone tablets:

1. As soon as possible (and before signing any legal documents), consult with an attorney experienced in representing individuals who have sustained head injuries. A skilled attorney can determine whether financial recovery from a third party is possible and can help you obtain federal, state and local benefits to which you are entitled (Social Security, DSHS, VA, DVR, public school system, etc). An attorney can relieve much of the stress and paperwork which accompanies and complicates recovery from a head injury, allowing you to focus on more personal matters.

2. Become knowledgeable about appropriate management of specific medical problems related to the injury. While neurologists, neurosurgeons or physiatrists frequently supervise medical care following a head injury, the nursing staff is most likely to have the time to teach you specific procedures and to answer your unasked questions.

3. Cognitive (thinking, memory, reasoning, judgment, etc.) and behavioral problems following head injury are usually more disabling than medical or physical problems. Therefore, you must ensure that the injured individual receives a detailed neuropsychological evaluation and that the results of that evaluation are discussed with you in terms which you can understand. If you know what abilities are impaired you are less likely to make unreasonable demands upon your loved one (and on yourself) and you are more likely to be able to anticipate problems.

4. Contact and join those organizations which focus their efforts on prevention, treatment and research into head injury: the National Head Injury Foundation, state head injury associations, and local support groups. These organizations can provide you with detailed information about community resources and facilities, put you in touch with other individuals who have surmounted the problems you are currently facing, and help you get your needs met.

5. Be assertive (not passive, not aggressive) about getting your needs met. Educate yourself about the rights of disabled individuals and make certain you obtain all benefits to which you are entitled. Continue asking questions until you get answers, even though the answer will frequently be that there is no answer. Remember, you are the expert on the injured individual; you interact intimately on a daily basis. Although you may not

Exhibit #16
1-27-93
S3-145

fully understand the medical situation, you know the strengths, weaknesses and personality which existed prior to the injury.

6. Avoid attempts to be Superman, Mighty Mouse and Wonder Woman. Maybe you don't need to dust every day (or even every week). Maybe the injured individual can do some things you are doing, albeit not quite as quickly or as well. Most injured individuals have too much time on their hands anyway; let them try.

Living with a person who has sustained a head injury is frustrating, exhausting, and stressful. If you maintain your perspective, your sense of humor, and your ability to call upon others for assistance and support, it can also be a rewarding experience for the entire family.

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THE USE OF PSYCHOPHARAMACOLOGY WITH THE HEAD INJURED

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The use of medications for emotional and behavioral problems following traumatic brain injury can be compared to a highly honed doubled edged sword. Traditional choices of medications were limited to those agents which non-specificity regulated the nervous system down, producing slowness of thinking and movement. Behavioral problems sometimes went away, but so did the "patient". Increasing experience in the use of "psycho-active" medications for individuals who have had TBI has led to more specific identification of target symptoms and the choice of agent. We are finally able to approximately target specific symptoms without leaving the patient feeling and appearing "drugged" or "doped-up."

The effort to tailor the medication regimen to the individual patient must involve the patient and family in addition to the physician. The principles of "consumer" involvement and teamwork need to guide the process of evaluating the regimen to ensure the achievement of optimal results. Patients and families must ask questions and they must receive understandable answers. They must become educated about medication effects and side effects. They must report back to the prescribing physician their observation and concerns. "Target symptoms" must be specific and, if possible, measurable to allow realistic assessment of desired affects. While the first guideline must always be to use as little medication as possible, any medication must be given in sufficient quantity and of sufficient duration to achieve it's therapeutic action. Only a collaboration of the "consumer" and the "provider" can achieve these goals.

A variety of classes of medications have been reported to have had beneficial effects on problematic behavioral states and emotional conditions following TBI. The high "risk-benefit" ratio and non-specificity of the anti-psychotic (neuroleptics) and sedative-hypnotics (benzodiazepines) can now be contrasted to better tolerated and more "symptom specific" agents. These include the anti-convulsents, Lithium, beta-blockers, anti-depressants and stimulants.

Medications can be of considerable benefit to the patients who experience behavioral or emotional difficulties following TBI. Careful definition of problem symptoms and desired goals, collaboration between patient, family and physician, and understanding of medication affects and side affects can lead to therapeutic success.

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Exhibit #14
1-27-93
SB-145

CEM #84-005

Questions About Traumatic Brain Injury (TBI)

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What is Traumatic Brain Injury or a Head Injury?

There are two basic types of head injury: "closed head injury" (CHI) and "open head injury" (OHI). CHI is usually caused by a rapid acceleration and deceleration of the head during which the brain is whipped back and forth, thus bouncing off the inside of the skull. The stress of this rapid movement pulls apart nerve fibers and causes damage to the activiated system of neuro-fibers which send out messages to all parts of the body.

This type of injury often occurs as a result of motor vehicle accidents, and places extreme stress on the brain stem — the part which connects the large areas of the brain to the spinal cord. A large number of functions are packed tightly in the brain stem, e.g. controls of consciousness, breathing, heart beat, eye movements, pupil reactions, swallowing and facial movements. All sensations going to the brain, as well as signals from the brain to the rest of the body, must pass through the brain stem.

CHI may individually or collectively cause physical, intellectual, emotional, social, and vocational difficulties for the injured person. These problems may affect both the present and future life and personality of the head injury survivor. Indeed, it frequently means that the person, as you know him/her, may never again be quite the same. This group is often described as the "walking wounded" because, although no visible damage is apparent, the psychological and intellectual consequences of TBI can be devastating to that person and his/her loved ones.

The second category of TBI is usually referred to as "open head injury." This is a visible injury and may be the result of an accident, gun-shot wound or a variety of other outside factors. OHI differs from CHI in that the injury is usually located at a focal point in the brain. Thus, very specific problems will result. For example, the individual may experience difficulties with forming speech, but show no problem with writing those words on paper.

Finally, cardiac arrest, stroke, accidents such as drowning, etc. all can cause anoxia (loss of oxygen to the brain), and thus may result in TBI. In these cases all of the brain cells may be affected, thus there may be an overall change in the behavior and personality of the individual.

What are the Symptoms of Traumatic Brain Injury?

"The Silent Epidemic" is a phrase frequently used to describe TBI as this injury often is not physically visible. Symptoms can vary greatly depending upon the extent and location of the brain injury. Physical disabilities, impaired learning ability, and personality changes are common.

1. **Physical Impairments** — speech, vision, hearing and other sensory impairments, headaches, lack of coordination, spasticity of muscles, paralysis of one or both sides and seizure disorders.

2. **Cognitive Impairments** — memory deficits: short and long term, concentration, slowness of thinking, attention, perception, communication, reading and writing skills, planning, sequencing and judgement.

3. **Psycho-Social-Behaviroal-Emotional Impairments** — fatigue, mood swings, denial, self-centeredness, anxiety, depression, lowered self-esteem, sexual dysfunction, restlessness, lack of motivation, inability to self-monitor, difficulty with emotional control, inability to cope, agitation, excessive laughing or crying and difficulty in relating to others.

Any or all of the above impairments may occur in different degrees. There may also be other symptoms not listed above. It is important to note that with early and ongoing therapeutic intervention, the severity of these symptoms may decrease, but in varying degrees. For example, intellectual ability might not improve, even over a long period of time, but behavioral or memory problems may abate.

When Do We Know How SeriousThe Traumatic Brain Injury Is?

Usually it is difficult to predict the outcome of TBI during the first hours, days or weeks. In fact, the outcome may remain unknown for many months or years. For loved ones, a physician's comment that "we'll just have to wait and see" can be very frustrating. Nonetheless, it is often the most accurate answer. During this time, the patient's loved ones should become advocates for him/her in order to ensure that he/she is receiving the best possible care (including the current advances in treatment and rehabilitation for traumatic brain injury) so that the patient can reach his/her maximum potential. But what does it mean to be an advocate? It means asking questions of doctors, nurses, and other health professionals, and learning as much as possible about the issues which surround head injury.

A severe brain injury is typified by a period of time in coma and a myriad of remaining disabilities. Some statistical information has shown that the longer coma lasts, the greater the disability is likely to be. However, recent studies have reduced the degree to which these facts are directly correlated. For patients with moderate brain injury (surviving six hours or less of coma) over half will be able to return to school, jobs, and independent living within a year after injury. Many of these individuals will have some residual cognitive (thinking and reasoning) problems. The process of recovery often takes much longer than family and friends expect. Furthermore, it is a source of great frustration to all involved when professionals do not have enough information to give a definite prognosis.

What is Coma?

Coma can be thought of simply as a prolonged state of unconsciousness. Although individuals in coma may have sleep and wake cycles, there is no speech, the eyes usually are closed (but may be open and not focused) and there is no meaningful response to external stimuli. When this sleep-like state lengthens to an hour or more, the term "coma" is used. There are several levels of coma defined by the person's increasing awareness in response to his/her surroundings. Professionals measure levels of coma by the *Glasgow Coma Scale* or the *Ranch Los Amigo* levels of cognitive functioning.

What about Minor Traumatic Brain Injury?

Unconsciousness lasting only a few moments (concussion) may not result in permanent brain damage or long-term disability, although an individual may be confused for several hours or days. With minor TBI, a person may have any one or several of the above symptoms or impairments with less frequency or severity than the person with more serious head injury. Those with minor TBI often suffer emotionally when this is not diagnosed by professionals or is not understood by their family and community. Because there is no concrete basis for their symptoms, these people often do not receive appropriate treatment or rehabilitation.

What about Rehabilitation?

Rehabilitation should begin as soon as possible following a head injury, even while the person is in coma. Early intervention by a rehabilitation facility that has expertise with TBI increases the possibility of maximum recovery — medically, physically, cognitively and psychologically.

As families plan for this, a loose-leaf notebook including different categories of information needed on the multiple aspects of TBI, rehabilitation centers, resources, and services available will ease the difficulty of coping with the flow of information.

TBI is very stressful for all those involved. It is important for each person to maintain his own well-being and to reach out and ask for help or suppport when needed — from family, friends, medical staff or clergy. Another resource is the local support group of the ***National Head Injury Foundation*** (NHIF) which can provide information on appropriate rehabilitation settings as well as emotional support for persons who have survived TBI.

What are the Different Types of Programs for Survivors of Head Injury?

The following categories are used to describe the various types of facilities involved in the rehabilitation of TBI. These categories are not mutually exclusive and programs may overlap. The descriptions are intended to serve only as a guide and it is up to each individual (or family) to determine what program is suitable to his/her needs.

Program Types - The following definitions have been designated by NHIF to classify the continuum of head injury rehabilitation programs available in the 1988 edition of theDirectory of H. I. Rehabilitation Services.

Coma Treatment

Primary emphasis is on active intervention with a person described as being in Ranchos Los Amigos scale levels **I-IV**. A coma treatment program will accept a person for active intervention even though the person is unable to actively participate in therapy.

Acute Rehabilitation

Primary emphasis is on the early rehabilitation phase which usually begins as soon as a person is medically stable. The program is individually designed and based in a medical facility with a typical length of stay lasting 3-4 months. Treatment is provided by an identifiable team in a designated unit.

Subacute Rehabilitation

Primary emphasis is on the post acute phase of rehabilitation. This type of program has the capacity to keep an individual from 6-24 months if necessary and does not have to be hospital based. Treatment is provided by an identifiable team in a designated unit.

Behavior Disorders

Primary emphasis is on intervention with the person who exhibits destructive behavior to self and others. These patterns of behavior prevent active participation in rehabilitation and are treated through a continuum of controlled settings.

Transitional Living

Primary emphasis is to provide training for an environment of greater independence. There is a greater focus on compensating for skills that cannot be restored and an emphasis on the functional skills needed to live in the community. The typical length of stay is usually from 4 to 18 months.

Day Treatment

Primary emphasis is on a program based in an outpatient setting with intervention across all disciplines.

Attachment #14
1-27-93
SB-145

Lifelong Living

Primary emphasis is for persons discharged from rehabilitation who need ongoing lifetime support. Structured activities are provided on both an individual and group basis usually in a residential skilled nursing environment.

Independent Living

Primary emphasis is on community based services to maximize a person's ability to be empowered and self-directed. An independent living program allows an individual to live in his or her own home with maximum personal control over how services are delivered, combined with the opportunity to work as much as possible.

Homecare

Primary emphasis is on a team integrated home program. A comprehensive program is designed with training and case management services in place before an individual returns home.

Educational

Primary emphasis is on primary, secondary, and higher education programs. Realistic academic goals are set, based upon professional knowledge of deficits resulting from head injury.

Employment

Primary emphasis is on vocational rehabilitation services that are designed to lead to an employment goal. Services can range from assessment to basic on-the-job supports.

Respite/Recreation

Primary emphasis is on a program which allows the person and family to adapt psychologically and environmentally to the residual deficits of head injury. This non-interventional model addresses socialization, recreation and respite needs.

SPECIALTY SERVICES

Catagories identified by the NHIF to classify frequently requested services. These services include respirator dependent, substance abuse, driver education, evaluation, visually impaired and Spanish translation.

Evaluation

A service offered by a program to assess and make recommendations about an individual's course of treatment and program design.

Substance Abuse

A service offered by a program to deal with chemical dependency of an individual. The dependency may have occurred prior to the head injury or as a result of the head injury.

Visually Impaired

A service offered by a program to deal with an individual who is blind, either prior to a head injury or as a result of a head injury.

Respirator Dependent

A service offered by a program to care for people who are dependent on a ventilator for breathing.

Driver Evaluation
A service offered by a program to assess an individual's functional ability to drive after a head injury.

Spanish Translation
A service offered by a program to assure that both the Spanish speaking person and his/her family have access to someone who can translate all program information into Spanish.

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Spivack, Martin, M.D., *COMA: Its Treatment and Consequences*, National Head Injury Foundation, Southborough, Massachusetts, 1982.

If additional information is needed, please write to the ***National Head Injury Foundation*, 333 Turnpike Road, Southborough, MA 01772, or call (508)485-9950.**

Family members and survivors may also call the NHIF Helpline:

1-800-444-NHIF

[illegible]
Billings, Montana 59102

National Head Injury Foundation, Inc.

WHAT IS A HEAD INJURY?

Characteristics of Head Injury

Serious head injuries usually result in prolonged loss of consciousness or coma. While it may be brief, lasting only a few minutes, it may extend to days or weeks. As time in coma lengthens, emergence to a fully alert state can take a long time. The individual and his family face a prolonged period of rehabilitation that can extend for years.

- Males sixteen to twenty-four years of age incurred more head injuries than any other age group.
- Motor vehicle accidents caused nearly one-half of all head injuries. The more severe the injury, the greater the likelihood that it was caused by a motor vehicle accident.
- Head injuries occur most frequently on weekends.

Symptoms of Head Injury

Symptoms can vary greatly depending upon the extent and location of the brain injury. Usually some communication, judgement, and perception problems occur regardless of which side of the brain was injured. However, damage is not always confined to the point of injury. In many cases of head injury, the brain crashes violently against the skull causing diverse symptoms unrelated to the functions associated with the specific part of the brain suffering acute injury.

People working with head injured clients often report their clients suffer from varying degrees of memory loss and impaired learning ability. Personality changes, lack of emotional control and seizure disorders are also common.

Types of brain damage caused by head injury are the following:

Concussion
Brain Stem Injury
Closed Head Injury
Cerebral Hemorrhage
Depressed Skull Fracture
Foreign Object (Bullet, etc.)

Anoxia
Aneurysm
  a) bleed
Stroke
  a) Blocked vessel
Post Operative Infections
  a) Encephalitis
  b) Meningitis

Impairments

A. Physical

- Aphasia
- Visual Impairment
- Hearing
- Physical Disability
  - a) Orthopedic involvement
- Spasticity
- Hemiparesis
- Parapelgia
- Seizures

B. Cognitive

- Memory Deficit--short and long term
- Perception
- Concentration
- Attention
- Lack of foresight
- Planning--sequencing
- Judgement
- Headaches

C. Psycho-Social-Behavioral-Emotional

- Fatigueability
- Euphoria
- Denial
- Egocentricity
- Lack of self-esteem
- Disinhibition
- Depression
- Sexual Dysfunction
- Anxiety
- Restlessness
- Lack of Motivation - inability to self-monitor
- Emotional Lability
- Inability to Cope
- Agitation

The above impairments, any or all, may occur in varing degrees. The severely impaired may encompass all of the above, but it is important to note that with early and ongoing therapeutic intervention, the degree of these symptoms might decrease.

Intellectual ability might not improve after a period of time, but social and behavioral aspects and memory could improve over long periods of time.

Increasing the return to a higher functional level should be a continuing goal.

Exhibit # 6
1-27-93
SB-145

DON'S PROFILE

Test Date: Aug 1986
Diognoses; Brain Damage; 294.10 Dementia (organic brain syndrome)
IQ: WAIS-R:84 Full Scale; 78 verbal; 93 nonverbal
WRAT-R:reading, spelling, & math <3% general population

He sustained a very serious head injury in an oilfield accident in 1983 leaving him with servere multiple handicaps. He has a protheses due to a previous accident below the knee on his right leg but walks very well with it. The servere head injury resulted in significant residual difficulties in cognitive functioning. He was left with personality and social adjustment problems. His seizures are now under control with the use of Dilantin. He has diabetes insipidus under medical control with the use of DDAVP (desmopressin Acetate) 0.01% solution for intrenasal administration at this time but must drink liquids fequently. His communication deficit is due to the inability to use the correct word and pronounciation so that others understand the context of the subject. He has pain and complaints regarding recurrent headaches. Backaches due to the compressed vertebra controlled by the use of a TENS unit.

He is independent in personal grooming and keeps himself very clean with an occasional reminder to shave. He likes people and appears to need someone around at all times and is aware that people don't want to be around someone with bad hygiene.

He attends church regularly and has very high ridgid morals. He has a real sense of right and wrong with no restraints about telling others when they don't measure up to his expectations and why. He has no concept of space if the other person is female or well known but will not get near a male for fear of being labeled a "Homo". Labling is a big issue, he doesn't want to be labled as abnormal in any way. He has his own definate opinions on what should be normal or abnormal and they are not the same from day to day.

He has a drivers licence and drives very well. He does get lost and needs to stop to readapt himself occasionally. He usually remains calm and is able to do this readapting alone if not he is not afraid to ask anyone anything he needs to in order to get reorganized.

He has a great personality and is great to be around, he does have times of depression but is able to hide them and will usually seek out his wife or psychiatrist to talk over the things bugging him. Don has experienced new social things the past three years. He has traveled and attended many different social functions which has given him a wider source of information of which to talk with others. He is no longer dwelling on his injury and feeling the poor me syndrome.

His headaches are recurrent but will usually respond to medication. Stress appears to bring them on and relaxation often eases them. Uncontrolled headaches are usually accompanied by depression which may last several days. He appears to have overcome the suicide tendencies which were previously a constant threat to his life. He is currently under Psychological care and also attends the Head Injury Support Group and their activities.

He worked in the oilfield as a diesel mechanic for thirteen years prior to the accident. He also worked as a supervisor on the labling floor for libby's foods for five years. He worked as a ski patrol and ski instructor for a resort at Lake Tahjo, California after graduating from high school and taking one year of college in the drafting field. All of this experience has been lost due to the brain injury and loss of memory.

He learns best by example and/or being told how to do a job rather than by reading instructions. He tends to not understand written instructions and will try to fake his way, rather than admit to a reading deficit. His memory deficit makes for repetition of instructions and task checking at each stage of development until the task has been mastered. He's willing attitude allows him to attempt that which is beyond his known capabilities. These experiences end in bouts of depression at times due to repeated failures because of tasks attempted which are beyond his ability to accomplish.

He is now very slow doing most projects attempted. Wooden projects are favored over other things but to regain his mechanical abilities is his dream and ultimate goal. He has spent time working at the Billings Sheltered Workshop and becomes enraged at the mention of it. The problem is open to debate. He doesn't want to be classified with persons with apparent head injuries or development disabilities. He is unaware that his cognitive disabilities are serious and dwells on his physical disabilities about not being able to work. He is a very traditional person concerning gender roles (womens work and mens work) and he doesn't want to do womens work in public, therefore dishwashing would not be an acceptable job for him. He also needs to be alone in order to be productive and finish the task at hand. He will seek the help of his wife when he can't read or figure out a phase of a project.

He is currently recieving SSDI ~~and Workmans Compensation monthly.~~

National
Head Injury
Foundation INC.
18A Vernon Street, Framingham, MA 01701 (617) 879-7473

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UNDERSTANDING THE ETIOLOGY OF BRAIN INJURY

ANDREW E. BARRER, Ph.D.
DOUGLAS H. RUBEN, M.A.

Males between the ages of 15 and 24 incur more head injuries than any other group. There are over 750,000 head injuries each year which require hospitalization. In 1983, over $10.5 billion was spent on the care, treatment, and rehabilitation of the head injured.

The brain is the key to our central nervous system. It controls our thoughts, feelings, and major movements--to name but a few of the many specific functions. The brain is the "computer" of the body, acting as the receptor for messages, interceptor of information, and the determinant of appropriate responses.

Information enters the brain through our senses: hearing, sight, touch, smell, taste, and "emotional" sense (often called our sixth sense). The brain, in turn, processes, remembers, solves problems, and makes judgments for us. In addition the brain controls many involuntary functions such as heart rate and respiration.

Serious brain injury can cause a threat to many of our important daily functions. A severe left side head injury can affect our ability to speak and to communicate thoughts visualized on the undamaged right side of the brain. The range of head injuries is very large. At one end, a head injury may cause only a minor bruise or headache for several days. At the other end, a severe head injury can physically immobilize, prevent communication or reception of information, reduce judgment ability to that of a child, or worse--cause death.

CRANIAL DAMAGE

The cranium, which consists of the bones securing the brain and holding the spinal fluid, is susceptible to injury from blunt force. The major part of the brain floats in this fluid, the brain stem, however, is stationary and is held in place, in part, by the many cranial nerves which leave the brain and secure it to the base of the head.

There are three main types of cranial brain injury:
1. Damage to the skin, bone, and brain.
2. Bleeding inside the skull.
3. Brain swelling.

Damage to skin, bone, and brain. Skull fracture is the most common form of damage to the skin, bone and brain. It can occur when the head hits the steering wheel in an automobile accident. A skull fracture is when there is a breaking or denting of the skull. When actual pressure is placed against the brain itself, it is a depressed skull fracture. A severe blow to the head often causes the brain to shift within the fluid of the head. This shift can also occur when there has been no skull fracture. Such is the case when temporary loss of consciousness occurs, or a person suffers concussion.

Severe head injuries may consist of a force causing the brain to twist back upon itself at the point where the brain connects to the brain stem. Consequently, the brain has an interruption in processing messages and carrying out important functions. Injury to the brain stem may also result in death. A coma may result when the loss of consciousness remains longer than just a short period of time. In coma, the patient does not open his eyes nor does he speak or follow simple commands.

Bleeding inside the skull. Bleeding is another serious result of head trauma. It may occur on the surface or in any of the many layers of the brain. The deeper the bleeding, the more serious the injury. A collection of blood in one or several locations creates a hematoma. A hematoma may be between the skull and the covering of the brain (epidural) or may occur between the membrane covering the brain and the brain itself (subdural).

A contusion, or bruise, usually is a consequence of hematoma. When bleeding occurs within the brain tissue the damage is called intracerebral hematoma.

Why is blood flow to the brain so important, and the presence of hematoma so serious? The flow of blood allows the brain to function normally. Bleeding must be stopped in order to avoid more serious injury. Accumulation of excessive blood within the brain may cause increased intracranial pressure (ICP). ICP is dangerous because it forces the brain into a smaller space. By reducing ICP, blood flow is restored temporarily and unlikely to produce swelling.

1-27-93
SB-145

Brain swelling. Brain swelling often occurs after a severe head trauma. It is caused by the increased accumulation of blood within the brain. During initial periods of care, water may build up on the brain, known as brain edema. Both brain edema and brain swelling are extremely dangerous and must be reduced when stabilizing the patient.

Frequent types of cranial injury in accident victims affect different neural regions essential for basic functioning. The following are the possible repercussions and major regions of the brain.

The medulla oblongata controls the nervous system's basic functions such as blood pressure, heart rate, and respiration; severe injury here will usually be fatal.

The recticular formation is not a single functional area, but rather contains fibers which enter into or connect with all major parts of the brain. These fibers, or nerve centers, help control muscle tone and complex reflexes. The recticular activating system controls wakefulness, and mechanisms allowing us to be alert and react to changes. Injury here can cause prolonged coma.

The cerebellum regulates most motor impulses. Injury to this area of the brain may result in an interruption of fine motor skills, posture regulation, coordination and aspects of sensory stimulation, perceptual discrimination, and emotionally balanced responses.

Within the midbrain, there is the integration of reflex and responses to the visual and auditory system. Injury to the midbrain may cause severe movement disorders.

The forebrain contains several important centers of functioning. The thalamus is the major sensory correlation center. It is a critical "switching" station for processing incoming and outgoing brain messages, often called the area of "conscious expression of sensation." Focusing of attention and concentration as well as retrieval of memory information are mediated here. Injury to the thalamus can impair intellectual ability, cause apathy, prevent the ability to initiate activities and can be the reason for prolonged disorientation.

The hypothalamus controls appetite, sexual arousal, and thirst. Injury to this important area brings on mood swings, inappropriate behavior, and deters motivation to work toward independent goals. (See Table I Page 3)

The cerebrum is the primary motor and sensory location of the brain. It is also the largest and most advanced of the brain structures. The cerebrum divides into two hemispheres, left and right which control daily functions and many of our primary senses and body movements. Such common behaviors as planning, problem solving, and judgment are centered in this region. In general, left and right hemispheres control opposite sides of the body. For example, injury to the left hemisphere of the cerebrum may impair the right arm and leg. The left hemisphere has a special responsibility for mediating speech and language functioning. By contrast, the right hemisphere deals more with planning and nonverbal and visual motor skills. General comprehension appears to be essential to right hemispherical activity. (See Table II - Page 3)

Depending on the site of the injury, a patient's emotional reactions may differ. Left-hemisphere-injured patients tend to have increased anxiety, oversensitivity and more severe depression. The right-hemisphere-injured patient may be less aware of his disability. He may be oblivious to even the most obvious inability or feel he can return to normal activity immediately.

The limbic system is literally a system of structures that run along centers of the brain and help mediate both memory and emotional behaviors. Here the brain screens incoming messages for prioritization and may direct attention to certain matters. Damage to the limbic system alters perception and also the attitude and motivation to carry out individual daily living behaviors. Disturbance of emotion arises both from social adjustment after head injury, and from the biological impairment of the limbic system.

In many instances, limbic system damage is correlated with damage to the temporal lobes, which control auditory memory and complex perceptual organization. The ability to sequence incoming stimuli may be reduced by temporal lobe injury.

SUMMARY

The brain is a complex network of regions, nerves and passage ways. Injury to any one part of it can affect one or more everyday functioning abilities. Movement disorder, emotional problems, mental processing, sensory perception, and memory are just a few of the potential problems of the head injured patient.

Following initial medical-trauma treatment and stabilization of the patient, the real work begins in rehabilitating the head injured individual. The first step is to assess the extent of loss in terms of physical mobility, communication, behavior, social adaptive ability, and actual measurable brain deficits. Following this, treatment should incorporate an interdisciplinary approach between hospital and community services working toward mainstreaming the patient. The road to recovery is a long one filled with gains and losses. The moments of despair hold the reality that optimal functioning may be realized over the horizon.

Excerpt from Readings In Brain Injury, edited by Andrew E. Barrer, Ph.D and Douglas H. Ruben, M.A.

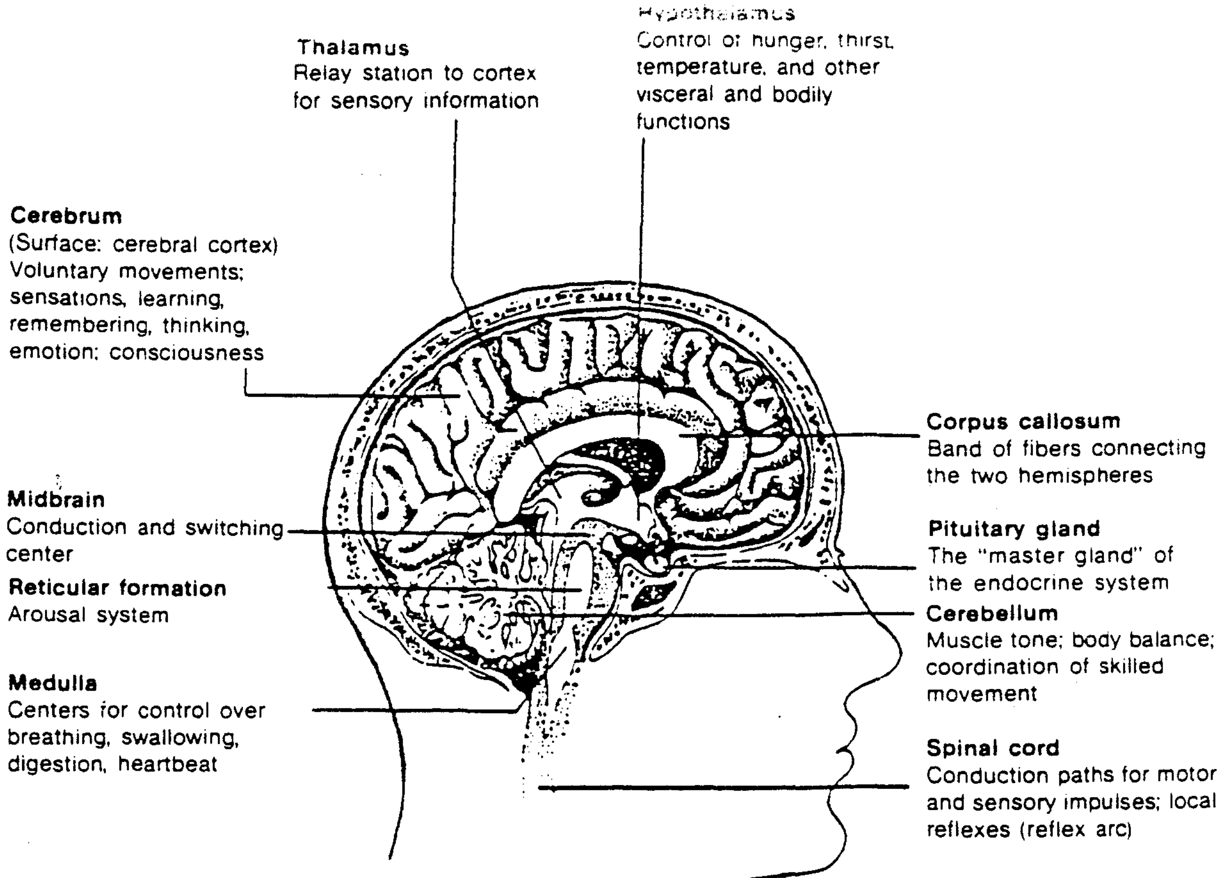

Table I: This simplified drawing shows the main structures of the human brain and describes some of their most important functions.

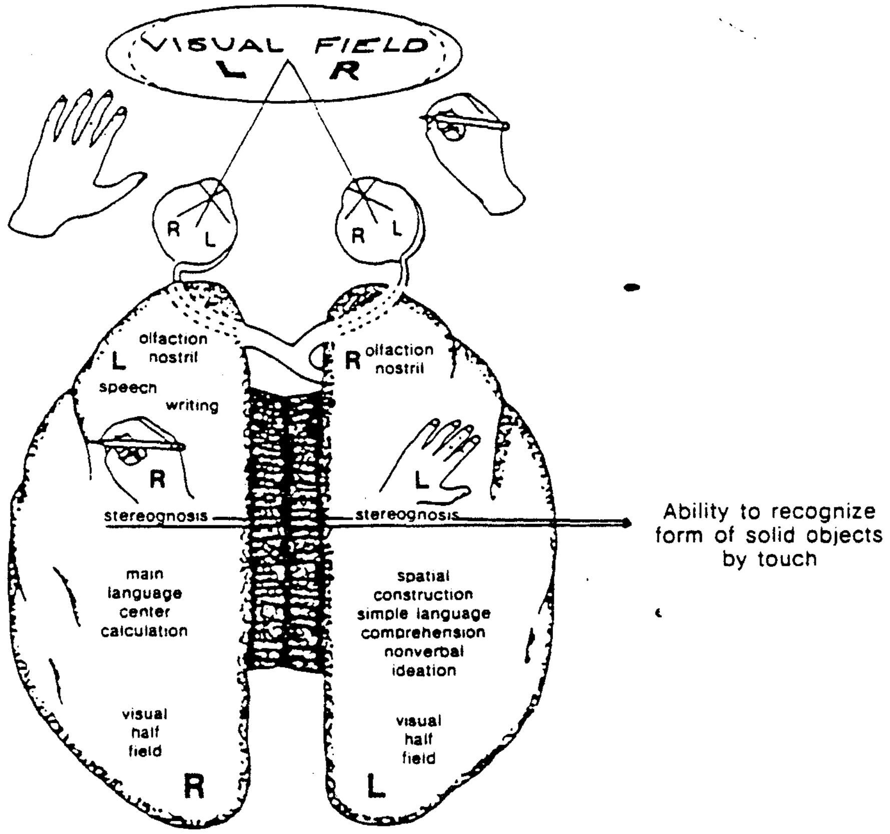

Table II: Schematic diagram of visual fields, optic tracts, and associated brain areas, showing left and right lateralization in man

Excerpt from Readings In Brain Injury, edited by Andrew E. Barrer, Ph.D. and Douglas H. Ruben, M.A.

NHIF 1984

Exhibit #16
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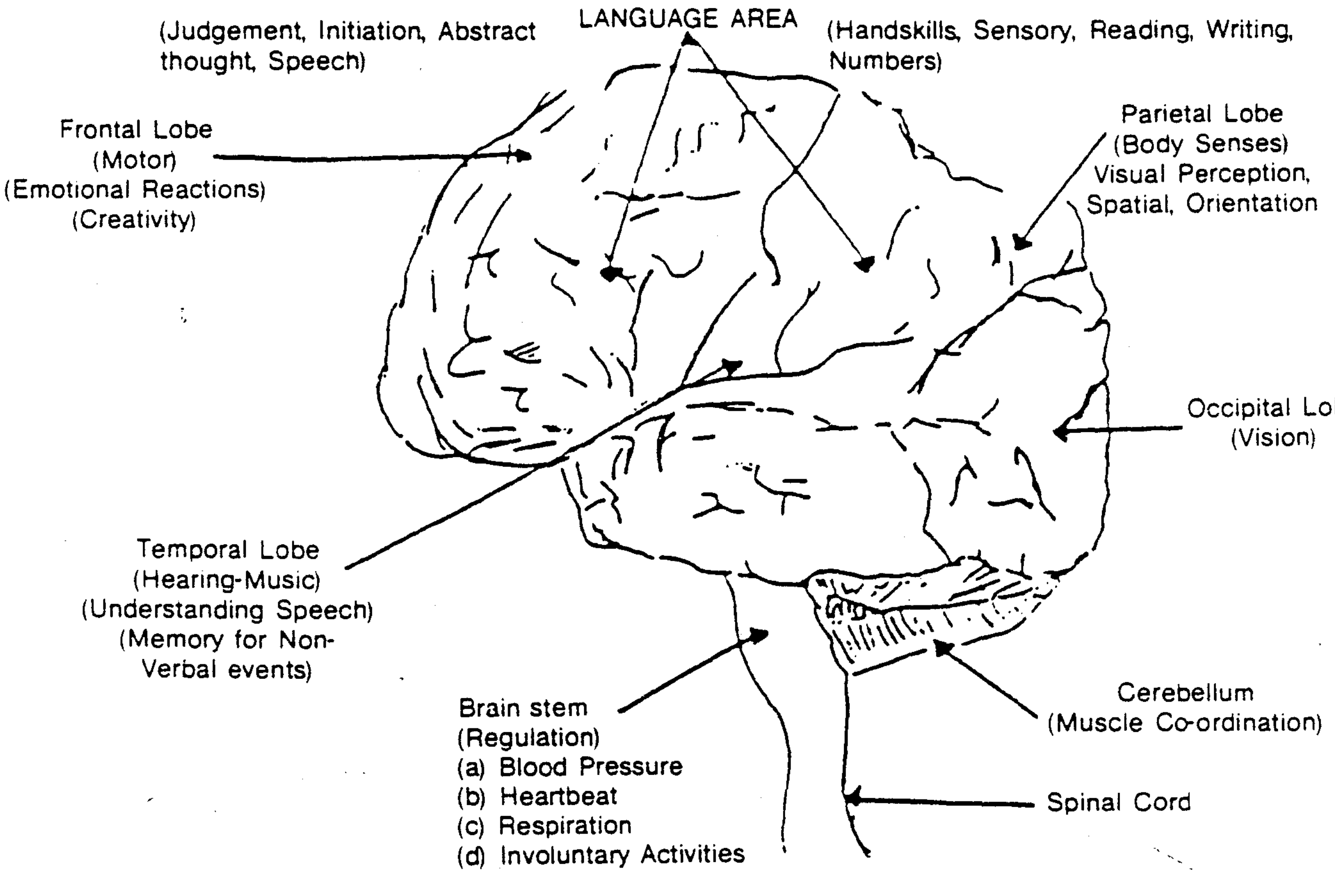
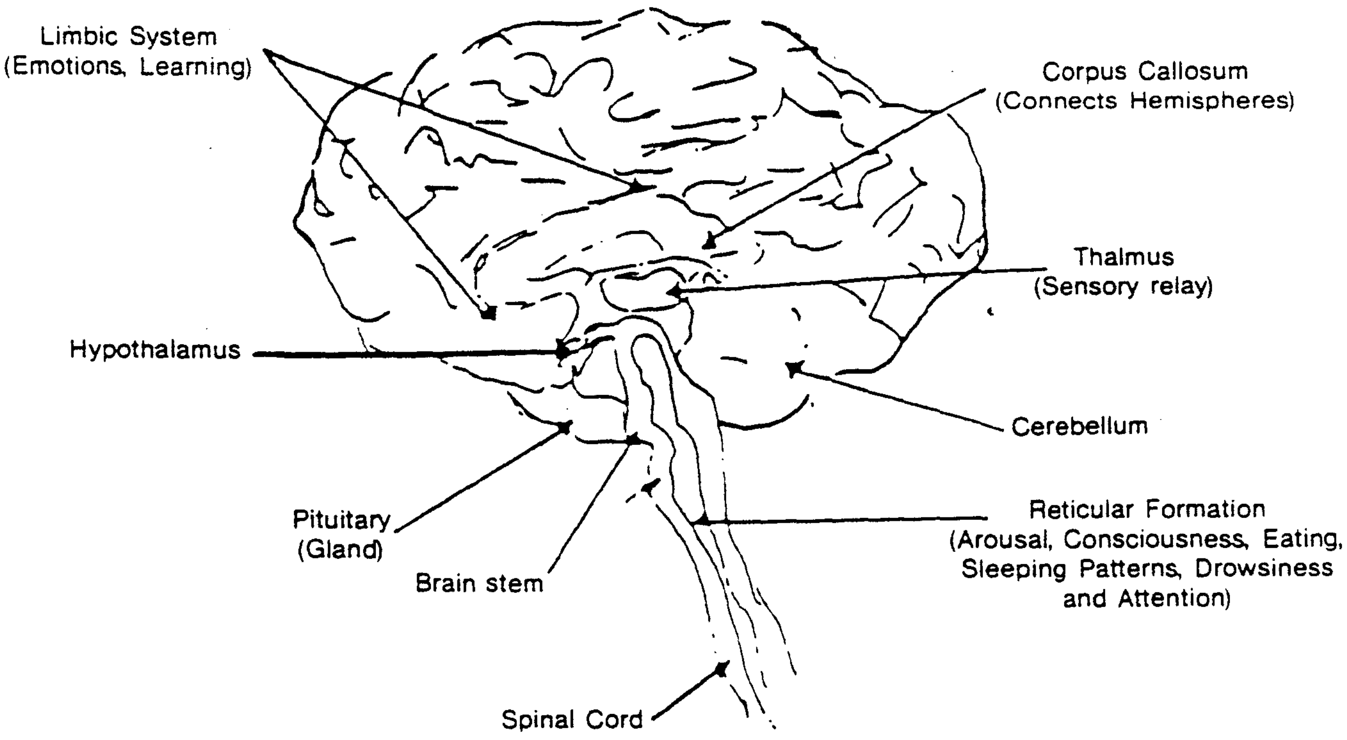
BRAIN SURFACE

Prepared by NHIF



MIDLINE VIEW



Cerebral Cortex with its major Functional Areas

JLL (1984)

Reborn: New Life

by

Donald J. Malone

March 22, 1988

After people becomes head-injured or receives brain damage, they don't know much about their previous life. They are like new babies and just been reborn. They must begin a new life and forget about the past. They are usually different people because they have lost memory of all or part of the things they once knew. The need to get back to what they "once were" is very inportant even tho some do not know what they once were. The need to begin to live in the present is very important because no one can go backward in life. Everyone alive today is different than they were yesterday and must face tomorrow. Life is a one way street and when we go the wrong way we have problems and mishaps. When everything doesn't go the way "they" think it should they blame the injury for the upset in their lives.

They usually don't remember much about their lives before the injury, so many of the head-injured people talk about how close they came to death. This is a way for them to feel important and are able to get attention without feeling more out of place (which they already do feel). Head injuries cause many frustrations because the different types of injuries effects the brain in many different ways, so no two injuries are ever the same. Some people look perfectly normal while others are in wheel chairs, on crutches, or can't move at all. Some can talk and think clear enough to live alone and function without help and some must have twenty-four hour care. The fact still remains they must each live from today and go on with life.

The head-injured persons must stop looking for sympathy and learn to communicate with other people. The tempers need to be controled and new listening skills need to be learned. Other people have good things to say too. Conversations with people in the outside world will help them a lot. If the need to learn to read, write, and do math is a problem, then returning to school may be the answer for those persons.

School has helped me a lot and I plan to go as long as I need to in order to learn again the skills I have lost. I will not be the same person I once was but I will live to see the day I will have what is called a "normal" life. I think I have a better life than before. This paper is very hard for me to write for I keep wanting to change the conversation. Learning does not have to stop for anyone head-injured or not, we must all continue to learn and change everyday of our lives.

GLOSSARY

This is only a partial list of the hundreds of terms and specialties associated with head injuries.

CT Scan: Computerized Tomography (like an X-Ray) is a test which takes a close look at the functioning of the brain by projecting an accurate picture. This test helps locate physical damage to the brain.

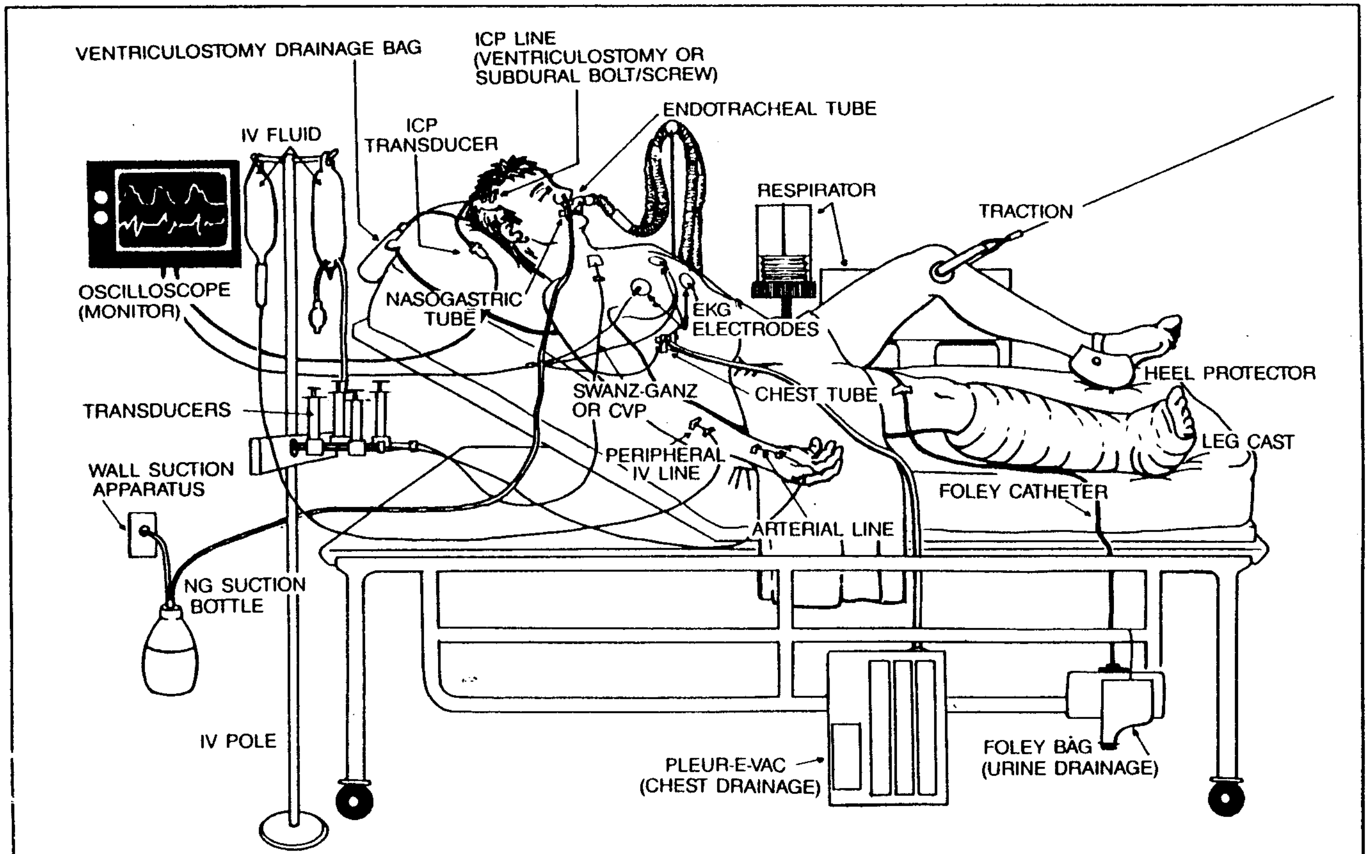
EEG: The electroencephalogram measures "electrical" currents from nerve cells of the brain. This test helps diagnose specific neurological conditions, especially the presence of a seizure disorder.

EKG: The electrocardiogram measures variations in the heart and heart muscle by connecting electrodes to the chest. Patients in the emergency room and intensive care units often are monitored with an EKG to assure normal heart functioning.

ICP Monitor: Intracranial Pressure Monitor indicates pressure within the brain. It consists of a small tube attached to the patient at the skull and then to a monitoring device. The ICP monitor helps assure close observation of activity within the brain which may result in swelling of the brain.

Medical Social Worker: A professional who helps arrange services and programs for the patient and family by communication between other professionals, insurance payer, patient and family. The Medical Social Worker is instrumental in discharge planning.

Neuropsychologist: A specialist involved in evaluation and treatment in the functional behavioral aspects of rehabilitation. The Neuropsychologist evaluates actual brain functioning in relation to real life activities, behavior and social adjustment.



Neurosurgeon/Neurologist: A physician who specializes in the treatment of patients with a variet of brain functioning difficulties. The surgeon may perform brain or spinal cord surgery when indicated.

Occupational Therapist: A professional who uses purposeful activity in the treatment of physically impaired individuals and helps them achieve maximu optimal functioning. The following areas are evaluate and addressed in the treatment of the brain-injured person as appropriate: self care skills/ cognitive/visu perceptual re-training; sensory stimulation; splint fabrication; upper extremity gross and fine motor activities; practical community skills such as pre-vocational training, money management and home visits to adapt physical environments to specific needs.

Physiatrist: A physician specializing in physical medicine and rehabilitation is involved in the evaluation of physical functioning of the body followi injury and during the patient's rehabilitation.

Physcial Therapist: A professional who evaluates and treats the head injured patient for neuromuscula deficits to maximize the patient's return to functiona activities. Interventions include posturing, adaptive equipments, therapeutic exercise, motor planning activities, transfer and gait training.

Speech-Language Pathologist: A professional wh evaluates and treats disorders of comprehension, reading, memory, orientation, oral-motor functionin writing and cognition which may be present followin closed head injury.

Content provided by the Michigan Head Injury Associati

MHIA

The Montana
Head Injury
Association, Inc.

A Message from the Montana Head Injury Association

People who have suddenly become involved with traumatic brain injury often wonder where they can find someone who can tell them what to expect. Some fear they may not be getting candid answers and others hesitate to ask questions due to their concern over the answers may receive. The simple truth is that no one can accurately predict all eventual outcomes. This leaves family members, as well as those who have been injured, perched somewhere between high hopes and deep despair.

The Montana Head Injury Association is always available to assist people who have these concerns. The MHIA has members throughout the state, many of whom have experienced every conceivable kind of frustration and uncertainty. Call the MHIA office at 406-657-2077 or the Saint Vincent Hospital Rehabilitation Center at 406-657-7723. We'll help you make connections with people who can make the difference.

1. What is traumatic head injury?

There are over 750,000 head injuries each year which require hospitalization. Traumatic head injury is an insult to the brain, not of a degenerative or congenital nature but caused by an external physical force or by internal damage such as anoxia (lack of oxygen) or tumor. It may produce a diminished or altered state of consciousness, which results in impairment of cognitive abilities and physical functioning. It can also result in the disturbance of behavioral or emotional functioning. These impairments may be either temporary or permanent and cause partial or total functional disability or psychosocial maladjustment. Ninety percent of head injuries occur as a result of a motor vehicle accident.

2. What does the brain do?

The brain is the center of our body's control system. One part of the brain controls our breathing, heart beat and circulation. Other parts of the brain control our vision, physical movement, memory, hearing and emotions, to name a few. The brain is our most vital organ and is involved in every aspect of our body's functioning.

3. What is a concussion?

A concussion results from a blow to the head which causes the brain to strike the skull. A concussion does not cause any structural damage to the brain, but can cause temporary loss of functioning. Headaches, memory loss and sleep disturbance may be some of the problems suffered after such an injury.

4. What is a contusion?

A contusion is a more serious blow to the brain, which results in bruising of the brain and more noticeable loss of functions. More comprehensive care is required for a contusion. Follow-up treatment and evaluation are required on a regular basis.

5. What is a skull fracture?

A skull fracture results in damage to the skin and bone of the skull as well as to the brain itself. The form of medical treatment varies with the location and severity of the fracture. Close observation and follow-up treatment are always required. Many skull fractures result in mild to severe problems associated with daily functioning such as walking, memory, vision, and behavior.

6. What is a hematoma?

The collection of blood in one or several locations of the brain creates a hematoma. A hematoma may be between the skull and the covering of the brain (epidural) or may occur between the membrane covering the brain and the brain itself (subdural). Hematomas may require surgery (a craniotomy) to be performed.

7. What is a coma?

A coma is a deep and extended unconsciousness which requires very close medical care. Close monitoring is necessary to evaluate brain and behavior changes.

8. What happens in the emergency room and Intensive Care Unit?

Most accident victims enter the hospital through the emergency room. The injury is diagnosed and appropriate action is taken. Some patients must go to the Intensive Care Unit (ICU) of the hospital for close, 24-hour monitoring of their condition. Other injuries sustained at the time of the brain injury may require ICU services not necessarily related to the head trauma.

9. What is medical stabilization?

Many head injury patients require time in the hospital for medical treatment such as recovery from surgery, healing of wounds, and setting of fractures. This is known as medical stabilization. Patients may be transferred from the emergency room or ICU, to a medical floor for observation, medical treatment and the beginning of rehabilitation services such as physical therapy.

10. What happens after medical stabilization?

After the patient has gone through medical stabilization, which can take from several days to several months, there are a variety of directions which may be taken.

A. The patient may be transferred to a physcial rehabilitation unit within a general hospital, or a specialized rehabilitation treatment center providing skilled nursing care. Physical, occupational, speech/cognitive and neuropsychological services can be provided on an intensive basis.

B. Some patients will not require skilled nursing care and may be transferred to a community program for head injury patients. These programs offer both inpatient and outpatient services.

C. Some patients will go home with their families and return to the hospital or a specialized outpatient program for their therapies and treatment.

D. Some patients who require extended skilled nursing care will be transferred to a long term care facility.

E. Some patients will return home to receive therapy and around the clock nursing care.

11. What is rehabilitation?

Rehabilitation is the process which helps an individual reach optimum function by providing a variety of services. Rehabilitation often uses a team concept which includes services of the physicians as well as physical, occupational and speech therapists, neuropsychologists, social workers, therapeutic recreational specialists and nurses. In addition, other professionals in education and vocational training help provide treatment services. However, the most important members of the treatment team are the patient and the patient's family.

12. Which is the best choice?

The appropriate choice for continued treatment is a major decision to be made by the patient and family. It is important to talk to your treatment team and fully understand the patient's needs. Each head injury patient is different, with their own set of individual needs. You must seek out as much information as possible to educate yourself about available resources.

13. What do families go through?

Shock, anger, hurt, denial and depression are som of the first reactions families experience. A loved one head injury can change the family's life as well. A grown and independent child may require more attention from you. An injured parent may need the assistance of adult children. As the patient goes through the stages of recovery, so does the family. Support and guidance may help you deal with chang which are ahead. The key is to take one day at a tim

14. What can the family expect?

Every head injury case is different. You cannot compare head injuries like you can a broken arm or leg. The effects of each head injury are very individualized. No one person has all the answers. Yo must start to read and gather information on head injury, its effects and possible treatment avenues ope to you. Educating yourself is important in setting realistic expectations.

15. Where can the family go for information and support?

To obtain further information and to locate the nearest Montana Head Injury Association support group, call 406-657-2077 or the Saint Vincent Hospita Rehabilitation Center 406-657-7723..

16. What is the MHIA?

The Montana Head Injury Association is a nonprofi organization made up of head injured people, family members, friends and professionals dedicated to providing information, advocacy and support. The MHIA is a chartered association of the National Head Injury Foundation.

17. Why is support from others important?

You cannot go through this trauma alone! We all need support from those who understand the pain an loss we are suffering. Support groups for both the patient and family are available to you. **Take advantage of this now!**

SB-145 1-27-93

'Heat wave' will last four more weeks

The groundhog might have predicted six more weeks of winter when he ventured out of his hole last week, but for Houston Conocoans it will be about a month more of the current "heat wave."

Bill Fortune, manager of office and services, says work on the first part of the air conditioning system will be finished March 13, according to the present schedule, and we will again have refrigerated air in the building. "We are trying to move that date up by a week to March 7," Bill said.

He points out that no artificial heat is being pumped through the building. "We are circulating fresh air," Bill says, "but the amount of heat generated by people, lights and machines is more than can be dissipated without refrigeration."

Another problem, he says, is that two separate systems are used to ventilate the building. "One system -- the perimeter system -- is for outside offices," Bill says. "This system pumps in 100 percent fresh, cool outside air. The other, the central system for the inside offices, pumps 90 percent recirculated air and 10 percent fresh air. This is why the outside offices are cooler than those in the center of the building."

The building is heated at night, he says, "but we turn off the heat at 6 a.m. daily. If we used no heat at all, the offices would be too cold when people come to work in the morning."

New faces in Houston

BURRELL

KELLY

DEVILLE

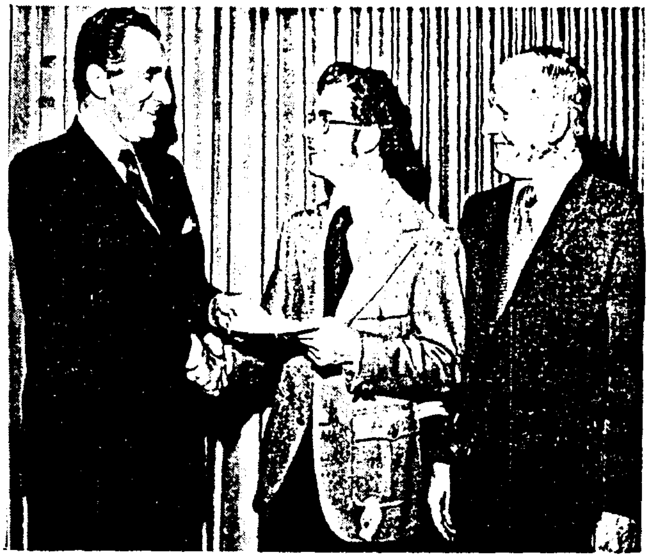
New employees

Jeannine A. Burrell, clerk, transportation.

Leah R. Kelly, clerk typist, purchasing.

Transfers to Houston

Robert P. DeVille, from Conoco Chemicals, Lake Charles, to associate analyst, refining.



Scotty MacLeod, right, watched proudly as his son Tom received a scholarship check from Wayne Glenn.

Conoco's glad Tom's back in school

Tom MacLeod received a Conoco scholarship check from WHPD President Wayne Glenn recently, and he worked harder for it than most other recipients.

Tom, son of C. O. (Scotty) MacLeod, marketing, won a company scholarship in 1967 when he graduated from Pascal High School in Fort Worth. In the summer of 1969, after his second year in the honors program at the University of Texas, Tom was critically injured in an automobile accident.

Although he was in a coma for three months, Tom was determined to recover -- and he has made substantial progress. During the past year and a half he attended the University of Houston and completed a semester's work, qualifying again for the scholarship he won five years ago.

Scotty says Tom, an avid clarinet player with the Longhorn band, is sitting in now with the U of H concert band.

Thrift plan report

The average price paid for Conoco stock for thrift plan members' accounts in January was $28.59. The stock traded on the New York Stock Exchange at a high of $29.50 and a low of $27.25.

The average price paid for U. S. Treasury bonds was $49.83.

January 28, 1993

SENATE HEALTH & WELFARE
EXHIBIT NO. 17
DATE 1-27-93
BILL NO. SB 145

TO: Committee for the Hearing of Senate Bill 145

FROM: Tom MacLeod, 2937 MacLeod St., Billings, MT 5[illegible]

Dear Sirs:

I have survived a serious auto accident since August 7 1969 in Texas. I lay in a coma and semi coma for about three months.

I had completed my sophomore schooling in the Honor's Program at the University of Texas in Austin. After my accident, I moved to Houston and obtained a BS degree in Political Science at the University of Houston in 1976. After that, I got a job as a messenger at the Neuro-Sensory Hospital there.

I had advice from Dr. Hite, my neuro-surgeon from Baylor Medical School to do a lot of exercise.

In 1979 I moved with my family to Billings. There I was helped by the Mental Health Center (as well as they could).

Psychiatric help has let me receive medication for concussion headaches.

In 1981 to 1987 I was helped by the Billings Workshop (now Core Enterprises).

I have passed 39 postgrad credits at EMC (GPA =2,5)
I have developed some skills in playing clarinet with the Billings Community Band. I have played this instrument since 1960.

I have tried to recover and I have made progress. But, I have spent <u>much time</u> waiting for opportunity to show itself.

To keep improving, I have walked up to three miles daily. In not-so-good weather, I have moved close to 30,000 miles on stationary bicycles.

I keep trying to do what makes me feel better. But seemingly this could be improved with more help.

Tom MacLeod

Note: This story is typical of brain injury survivors all over the state.

January 27, 1993

Madam Chair and Members of the Committee:

My name is Ellen Vogelsang. I am a Speech and Language Pathologist working with survivors of traumatic brain injury. I am here today as a member of the Board of Directors of the Montana Head Injury Association, which is a non-profit organization affiliated with the National Head Injury Foundation.

I would like to take this opportunity to ask for your support of SB 145. SB 145 is very important to the people of Montana for it proposes implementation of a legal definition of traumatic brain injury and the development of a trust fund to develop, expand and improve our current service delivery system to families and survivors of traumatic brain injury.

Each year, an average of 1800 Montanans suffer a traumatic brain injury, and of those, over 550 or 25% are severe enough to require hospitalization. 5% of those injured will die within hours of the incident. Of the survivors, approximately 15% will suffer permanent, life long debilitating losses of function. 1% will exist in a persistent vegetative state.

We can estimate that at any given point in time, 600 survivors of TBI live in Montana communities. 50 survivors live in Montana nursing homes. Of those, 30 are funded through Medicaid. 72% or 44 of these people are under the age of 60, 20 of them under the age of 30. Approximately one-half of these people are in nursing homes because their medical condition is so severe. The balance are there because of behavioral management problems, lack of financial resources for community living or because no community support systems are available.

Another 20 survivors are living in the Warm Springs State Hospital. Of these, approximately one-half would require intensive staffing in a community-based setting and the balance could function in the community with ongoing case management and housing services. The hospital is staffed and programmed for psychiatric problems and not for TBI. The treatment program for psychiatric disabilities is fundamentally different that that for TBI. Often, the two treatments are not only different, but contra-indicated for the TBI survivor. If a TBI occurs before the age of 18, the survivor is eligible to receive services through Developmental Disabilities programs, programs which often are also contra-indicated for persons with traumatic brain injury.

Exhibit # 11
1-27-93
SB-145

Vocational Rehabilitation served 239 clients with traumatic brain injury this past fiscal year. They returned 27 individuals to work, expending $373,371 on this population. Vocational Rehabilitation estimates that one-half of the traumatically brain injured survivors with permanent disability are existing in Montana communities without services.

Our association has recently learned that the Montana Medicaid system spent 6 million dollars in a six-month period on hospitalization, nursing home expenses and rehabilitation for persons with TBI.

SB 145 proposes to implement a legal definition of TBI and the opportunity to evaluate our current service delivery system and to determine why persons with TBI fall through the cracks. The bill would also support the development of a trust fund by increasing highway speeding fines to $20.00 to develop, expand and improve the current service delivery system. Montana Department of Justice statistics indicate that nearly 50% of all traumatic brain injuries are the result of motor vehicle crashes. This bill would ensure that the survivors and families of traumatic brain injury have a single point of entry, coordination of services and uniform eligibility requirements as well as access to services.

With your support of SB 145, support services, including prevention, will be developed, expanded or improved to address the continuum of overwhelming needs. Your support will provide the opportunity to develop a service model for our state that will enhance the ability of the individual with traumatic brain injury to live as independently as possible and to function within his or her family and community. Your support will also enable the survivor of traumatic brain injury to secure and maintain, when appropriate, employment and the opportunity to return to being a financial contributor to our society.

Thank you.

DATE 1-27-93

SENATE COMMITTEE ON Public Health

BILLS BEING HEARD TODAY: SB 145

Name	Representing	Bill No.	Check One		OTH
			Support	Oppose	
John F. McCulloch	MT Head Inj Assoc	145	X		
Ann Patrick	Bozeman Care Center	145	X		
Vern Gray	Helena Head injury	145	X		
Vicki Pina	" " "	145	X		
Ray Pina	" " "	145	X		
Tawnya Pina	" " "	145	X		
Richard Lehmann	MIAD MSO	145	X		
Marie Beverly Sloan	TBI Families	145	X		
Gregory Engullant	TBI Survivor	145	X		
Chris Laidlaw	" "	145	✓		
James Laidlaw	TBI Family	145	✓		
Daniel Cochrane	TBI Survivor	145	✓		
Lorie Wallace	TBI Survivor	145	✓		
Steve Pillatzke	TBI Survivor	145	✓		
Greg Daly	Provider/Friend	145	XXX		
Wally Melcher	Helena Industries	145	✓		

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F10

Page 1 of 4

DATE ____________________

SENATE COMMITTEE ON ____________________

BILLS BEING HEARD TODAY: ____________________

Name	Representing	Bill No.	Check One Support	Oppose
SHARON MILLER	EASTER SEAL - GF	145	✓	
Linda Rohwein	MT Missoula Chpt Montana Head Injury Assoc	145	✓	
Joe Beneventi	Helena Industries	145	✓	
Cathy Marel	United Way + Helena Support Grp	145	✓	
Allan Weinert MJ		145	✓	
Kerrie Riedelbach	Helena Industries	145	✓	
Sandi McDonald	Helena Ind.	145	✓	
JILL KENT	HELENA INDUSTRIES	145	✓	
[illegible]	Flathead Industries	145	✓	
JOYCE DECUNZO	Medicaid	145		
Sandra Lehmann	Msla MHIA	145	✓	
Becki Foster	Msla	145	✓	
Brenda Rasmussen	Missoula	145	✓	
Tom Gale	Msla	145	✓	
Jason Burrell	MSLA	145	✓	
Stacy Crockett	MILP	145	✓	

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F10

Page 2 of 4

DATE ____________________

SENATE COMMITTEE ON ____________________

BILLS BEING HEARD TODAY: ____________________

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Name	Representing	Bill No.	Check One Support	Oppose
Bob Johnson	MILP	145	X	
[illegible] Romani	Family			
Ramon Romani	MILP			
Bill Worm	Helena Industries	145	X	
Clyde McDowell	Helena Industries	145	X	
Dona Gibson	Medicaid Waiver, Case Management	145	X	
Wayne W Krebsbach	Family	145	X	
Newton L. [illegible]	Family	145	X	
Mary Burridge	TBI Family Member	145	X	
ERIC BURRIDGE	" "	145	X	
Ed Beveridge				
Linda Hamilton	All segments	145	X	
Judy Campbell	TBI	145	X	
James d Campbell	TBI	149	X	
Dennis Malone				
Roni [illegible]	TBI	145	X	

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page 3 of 4

DATE ______________________

SENATE COMMITTEE ON ______________________

BILLS BEING HEARD TODAY: ______________________

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Name	Representing	Bill No.	Check One Support	Oppose
Nicky Shorten		145	X	
PEARL SPURZEM	FAMILY	145	X	
Ellen Vogelsang	MHIA	145	X	
Jack [illegible]	Missoula Head [illegible]	145	X	
Dennis Eccleston	Self - TBI	145	X	
LeRoy [illegible]	" "	145	X	
[illegible]	[illegible]	145	X	
[illegible]	Billings	145	X	
Thomas MacLeod	Billings	145	X	
PAUL SCHOFIELD	BOZEMAN (SELF)	145	X	
Mary Ellen Denton	Helena	145	X	
Sylvia McCulloch	Belgrade	145	X	

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Page 4 of 4