POMONA VALLEY HOSPITAL
MEDICAL CENTER
TRAUMA & ACUTE CARE SURGERY SERVICES

Expert care with a personal touch

Pomona Valley Hospital Medical Center

Trauma Handbook for Patients and Families

trauma survivors network provided by ATS

SULUM PATIENS SULUM VICIS · EVERY PATIENT EVERY TIME ·

Pomona Valley Hospital Medical Center Trauma Center

Our Mission

Pomona Valley Hospital Medical Center is dedicated to providing high-quality, cost-effective health care services to residents of the greater Pomona Valley. The Medical Center offers a full range of services, from local primary acute care to highly specialized regional services. All services are selected based on community needs, financing availability, and the organization's technical ability to provide high-quality results. Basic to our mission is our commitment to strive continuously to improve the status of health by reaching out and serving the needs of our diverse ethnic, religious and cultural community.

Our Vision

At Pomona Valley Hospital Medical Center, we are proud to be a trusted hospital in Pomona. Part of our vision is to be the region's most respected and recognized hospital, leading the community as a provider of world-class healthcare services.

Our Goals

1. Provide exceptional care for injured patients by developing a high-functioning trauma team that serves our surrounding communities.
2. Create an environment of collaboration with other health care teams to achieve optimal patient outcomes.
3. Actively participate as a member of the Los Angeles County, San Bernardino County and Riverside County Trauma Systems.

This handbook has been developed for you by Pomona Valley Hospital Medical Center in collaboration with the Trauma Survivor Network (TSN) of the American Trauma Society. We hope this information will help you and your loved ones during the hospital stay.

There is room at the back of this handbook for you to take notes and write down questions for the hospital staff. Use this to ensure you get all your questions answered.

We encourage you to visit the TSN website at www.traumasurvivorsnetwork.org to learn about the services this program provides. You can also use this website to keep your friends and family informed during your loved one's hospital stay.

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ARRIVAL

1. INTRODUCTION

WE ARE HERE TO HELP

Trauma is an unexpected occurrence. Hardly anyone thinks, "I'm going to get hurt today." A sudden injury, being in the hospital, and going through recovery can cause anxiety, fear, and frustration. You may feel confused and frightened by some things you hear and see. You may not understand some words that people use. This experience of advanced medical care may be a whole new world for you.

We hope the information in this book will help you better cope during this difficult time. It includes basic facts about the most common types of injuries and their treatments, the patient care process, and hospital services and policies.

There is space within this book to take notes. We encourage you to write down questions you have for the doctors and staff. Every member of the hospital staff is here to help you.

POMONA VALLEY HOSPITAL MEDICAL CENTER TRAUMA CENTER

When a loved one is suddenly injured, your instinct is to rush to the nearest hospital emergency department. However, not every emergency department is equipped to handle traumatic injuries. Only certain hospitals in Los Angeles County – including PVHMC – are designated as trauma centers and are equipped to treat life-threatening injuries 24 hours a day, seven days a week.

Unlike regular hospital emergency departments, trauma centers must meet many rigorous standards established by the American College of Surgeons (ACS). That includes having special equipment and specially trained staff around the clock at the hospital, whose sole purpose is to treat traumatically injured patients. PVHMC's trauma center has trauma surgeons who are double board-certified in general surgery and surgical critical care. They're supported by elite orthopedic surgeons, neurosurgeons and 24-hour in-house anesthesia coverage. Not all trauma centers offer the same services; some patients may need to be transferred to another specialty center. An example would be a patient with significant burns that required admission to a burn unit.

"Though no one can go back and make a brand-new start, anyone can start from now and make a brand-new end."
Quote chosen by Lauren Gurrola, BSN, RN, TCRN, CCRN, Trauma Program Manager, from the book "As We Understood."

2. IMMEDIATELY AFTER THE INJURY

ARRIVAL AT THE HOSPITAL

Here is what has happened so far…

Most likely, you or your loved one was brought to the Emergency Department (ED) by an ambulance or helicopter. The trauma staff can tell you which service brought you or your loved one to the hospital.

During the transport, the rescue crew was in radio contact with the hospital. They provided information about your or your loved one's injuries, which allows our team at the trauma center to be ready to provide treatment as quickly as possible.

The trauma team typically includes:

- Trauma surgeons
- Emergency doctors
- Registered Nurses
- Respiratory Therapist
- X-ray staff
- Social workers

INITIAL ASSESSMENT

Trauma care at the hospital begins in the Emergency Department. It includes:

- An exam to find life-threatening injuries.
- X-rays, ultrasound and perhaps a CT/CAT scan so that doctors can better understand the extent of the injuries.
- The patient may be transferred from the Trauma Bay to another bed in the ED, surgery, or to another unit in the hospital.
- If needed, they were transferred to the Operating Room (OR) for surgery. An expert team staffs the OR.

WHY A PATIENT MAY HAVE A DIFFERENT NAME

Sometimes, the hospital does not know the patient's name. The hospital may give the patient a fake name to ensure that doctors can match the right lab and other reports with that patient. An example of these names may be "Trauma, John" or "Trauma, Jane."

The name may have made it hard for you to locate your loved one at first. When hospital staff can be sure of your loved one's name, they will change it to the real name.

Under certain circumstances, a patient's identity may remain anonymous.

> ***"My deep commitment to the Trauma Survivors Network is a way for me to make sure that trauma survivors everywhere finally receive the resources that few, if any of us, had before."***
> ***~ Steve, Trauma Survivor***

QUESTIONS YOU SHOULD BE PREPARED TO ANSWER

Sometimes, trauma patients are unable to provide direct information and the medical team will look to family members or friends to help answer questions. Please be prepared to answer the following:

1. Medical History (medical problems, surgeries, prior hospitalizations): _____
   _____
   _____
2. Primary Care Physician (PCP): _____
   _____
   _____
3. Allergies to medications: _____
   _____
   _____
4. Medications (prescribed, over-the-counter, vitamins): _____
   _____
   _____
5. Any history of substance misuse: _____
   _____
   _____
6. Code Status / Patient wishes if their heart were to stop: _____
   _____
   _____
7. Advanced Healthcare Directive / Durable Power of Attorney for Healthcare Decisions (DPOA):
   _____
   _____
8. Who will be the family spokesperson (name and phone number): _____
   _____
   _____

The trauma team's primary role is to treat your loved one. Family is an important part of the healthcare team. You can assist in their care by providing information regarding your loved one. Please appoint **one family spokesperson** if the patient did not complete an advanced healthcare directive. All family members must appoint and agree upon the spokesperson to deliver important information between the trauma team and the family.

WHAT YOU MAY SEE

You may see the patient one attached to various machines and IVs (lines of medication, blood, or fluids). Please do not move or adjust any of the equipment or machines. You may also hear noises, alarms, and buzzing. Nursing staff are aware of emergent noises and will respond immediately if needed. Various staff may examine or provide care for the patient, so please allow adequate space. If you feel overwhelmed, please feel free to step outside to get some fresh air.

3. THE HEALTH CARE TEAM NEEDS THE FAMILY'S HELP

Our primary role is to treat patients. We need your help taking care of your loved one and ensuring they receive the best care possible. Here are the things you can do to help us and your loved one:

TAKE CARE OF YOURSELF

Worry and stress are hard on you, and you need strength to offer support to your loved one. The trauma unit team understands that this time can be just as stressful for family and friends as it is for patients.

Be sure to continue taking any medication your doctor has prescribed. Take breaks. Go for a walk around the hospital campus. Getting plenty of sleep and eating regular meals helps you think better, keep up your strength, and prevent illness so you can be there for your loved one when needed.

ASK FOR HELP FROM YOUR FAMILY AND FRIENDS

Do not hesitate to ask for help. Make a list at the back of this book so you will be prepared to accept help when friends offer. Friends appreciate being able to help and be involved in the patient's care.

ASK QUESTIONS AND STAY INFORMED

The trauma team knows how vital regular updates are to family and friends. The family is an important part of the health care team. It helps if you choose one person from your group to represent the family. This allows staff to focus on caring for the patient instead of repeating the same updates.

When you think of questions during the day, write them down. Be sure to ask your doctor these questions when you see them. You will want to ask questions until you understand the diagnoses and options for treatment. It's all right to ask the same question twice. Stress makes it hard to understand and remember new information. Write down what you are told so you can accurately report the information to other family members. We have provided space throughout this handbook to write down your questions and the answers.

HELP MAINTAIN A RESTFUL AND HEALING PLACE

When you are visiting, please talk in a quiet voice. Patients need quiet, and families deserve your courtesy. The hospital counts on your help to maintain a healthy environment. Please:

- Observe the visiting hours for the area you are visiting.
- Do not sleep in patient rooms or waiting rooms unless you have permission.
- Respect other patients' right to privacy.
- Leave the patient room or care area when asked by hospital staff.
- Knock or call the patient's name softly before entering if a door or curtain is closed.
- Wash your hands before entering a patient's room and when you come out.
- Do not visit if you are not feeling well or have an illness that could spread to our patients.
- Talk with the patient's nurse before bringing children under 12 years old into a patient's room.
- For the safety of young children, adult supervision should be provided in all areas of the hospital.
- Respect the property of other people and the hospital.
- Do not ask other patients and families about private details of their care.
- Respect the rights of all patients and hospital staff.

STAY

4. WHERE PATIENTS STAY WHILE IN THE HOSPITAL

After doctors evaluate patients, they may move them to another unit in the hospital. Where they are moved depends on their injury.

Patients may first go to the intensive care unit (ICU). When they are ready, they may then move to a Telemetry (Tele) or Medical Surgical (Med/Surg) unit or another hospital unit. Patients are only moved from one unit to another when the trauma team believes they are ready.

The hospital staff does its best to let family and friends know when a patient is moved from one unit to another. If your loved one has been moved and you do not know where they have gone, please call the hospital operator at 909.865.9500.

Hospital units that care for trauma patients:

TRAUMA INTENSIVE CARE UNIT (TICU)

Patients in the TICU receive care from a team of doctors and nurses who are trained to treat seriously injured patients. The first step is to ensure the patient is medically stable, which means all body systems are working. As the patient is being treated, the team begins to plan with the patient and family. This plan will help the patient return to everyday life as quickly and safely as possible.

TELEMTRY UNIT

Patients in the ICU are often moved to a telemetry unit as they improve. They may also go straight from the admitting area to this type of unit if they do not need the care provided in the ICU.

MEDICAL AND SURGICAL CARE UNITS

Patients who are less injured may be moved to another hospital unit. Those who no longer require the care found in the ICU may also be moved to these units.

A TYPICAL DAY IN THE TICU

Most patients are connected to equipment that gives doctors and nurses important information. This allows them to make the best decisions. Equipment:

- Monitors patients
- Delivers medicine
- Helps patients breathe

Do not worry if you hear alarms. Some alarms do not need immediate attention. The staff knows which ones to respond to.

In the morning, the trauma team "rounds" on each patient to do exams, check progress and plan the patient's care. This time is valuable for everyone involved in caring for your loved one. Family members are encouraged to be part of the patient's plan of care.

Physical and occupational therapists and nurses work together to help patients begin to move normally and regain strength. They may:

- Raise the head of the bed
- Turn a patient every two hours
- Help a patient sit on the bed or in a chair

Patients may be moved to other areas of the hospital for tests. During this time, other patients may be brought into the unit. Sometimes, the staff asks all visitors to leave the unit to preserve a patient's privacy.

5. WHO TAKES CARE OF THE PATIENT

Many types of caregivers may take care of your loved one while they are in the hospital. Different patients will need different types of care. Here is a list of the kinds of doctors, nurses and other caregivers you may meet or hear about:

ANESTHESIA

Anesthesiologists are doctors that oversee your sedation and comfort during an operation or invasive procedure.

CASE MANAGER

Admitted patients have a designated Nurse Case Manager who assists and facilitates care coordination of your discharge from the hospital and beyond.
Your case manager can:

- Work with your insurance company to ensure appropriate management of your benefits
- Get supplies you will need at home if covered by your insurance provider
- Help you learn how to take care of yourself
- Refer you to a home health agency if you need it
- Help you get continued care with a specialist
- Coordinate your transfer to a rehabilitation facility

CHAPLAIN

Spiritual Care Services provides professionally trained Chaplains from diverse faith traditions. Chaplains have special skills for helping people during times of illness. They meet the spiritual needs of patients and families from many different religions and visit those who would like spiritual support.

This department provides:

- Pastoral care visits and counseling
- Religious and spiritual care and support
- Support with decision-making
- Prayers and rituals
- Connection with local faith communities upon request

To request a Chaplain visit, please contact 909.469.9305 (dial extension 9305 from a hospital phone), or ask any member of the care team for assistance.

DIETITIAN

Dietitians are food and nutrition experts. They work closely with the trauma team to care for patients. For example, if a patient needs a feeding tube at home, the dietitian explains the proper diet.

GERIATRICIAN

Geriatricians are doctors with expertise in treating and caring for the complex needs of older adults.

NEUROSURGEON

Neurosurgeons are doctors who specialize in surgical procedures of the brain and spinal cord.

REGISTERED NURSE (RN)

Registered Nurses provide direct patient care in all areas of the hospital. A registered nurse will be overseeing your care in collaboration with the interdisciplinary team.

NURSE ASSISTANT

Nursing assistants help nurses with a patient's care. They may also help get the patient out of bed or help with feeding. Nursing assistants work under the direction of a nurse or a doctor.

NURSE PRACTITIONER (NP)

Nurse practitioners are nurses with advanced training who manage patients along with doctors.
Trauma nurse practitioners do the following:

- Physical exams
- Order and interpret tests
- Prescribe medications and other treatments
- Refer patients to other specialists

OCCUPATIONAL THERAPIST

Occupational therapists help the patients regain strength for daily events.
This includes getting out of bed, eating, dressing and using the toilet and bathing. They also recommend equipment that can help patients.

ORTHOPEDIC SURGEON

Orthopedic surgeons are physicians who have specialized training in repairing broken bones.

ORTHOPEDIC TECHNICIAN

Orthopedic technicians do the following:

- Cast broken bones
- Change wound dressings
- Set up and maintain treatment equipment, such as traction
- Place splints on injured arms and legs

PATIENT TRANSPORT

Patient Transporters are members of the health care team that assist with the physical transportation of patients between departments. They are under the direction of the Nursing staff and are skilled in handling patients during transitions.

PHARMACIST

Pharmacists are experts in medicine. They work closely with nurses and doctors, providing information and helping with medicine selection.

PHYSIATRIST OR REHABILITATION MEDICINE PHYSICIAN

Physiatrists are doctors who use several tests and exams to plan a patient's rehabilitation. They prescribe devices, including wheelchairs, braces, and artificial limbs. Their goal is to help the patient live independently.

PHYSICAL THERAPIST

Physical therapists help patients regain their strength and movement. They also help with stiff joints, other mobility problems and wound healing.

PHYSICIAN ASSISTANT (PA)

Physician assistants have advanced training and manage patients along with the doctor.
Trauma physician assistants do:

- Physical exams
- Order and interpret tests
- Prescribe medications and other treatments
- Refer patients to other specialists

RESIDENT

Residents are licensed physicians who receive additional training in a specialty. They provide patient care and inform the attending doctor of the patient's progress.

RESPIRATORY CARE PROVIDER

Respiratory therapists provide breathing support and treatments. Respiratory therapists are specially trained and state licensed.

SOCIAL WORKER

Social workers help patients and family members adjust to the injury. Hospital social workers specialize in medical and crisis counseling. They talk with patients and the medical team. They also help patients and families with services within the hospital and the community. The social worker may also help ease the change from hospital to home by working collaboratively with your case manager.

SPEECH AND LANGUAGE THERAPIST

Speech therapists work with patients on language, memory and swallowing problems, often under the direction of a physiatrist. They may also evaluate hearing.

TRAUMA SURGEON

Trauma surgeons are doctors who specialize in surgeries to repair the physical injuries from what brought you into the hospital. A trauma surgeon is in the hospital 24 hours a day. They will oversee the total care of you or the patient in the hospital. They regularly visit patients to check on their progress and coordinate with other trauma team members.

TRAUMA SURVIVORS NETWORK COORDINATOR

The Trauma Survivors Network (TSN) Coordinator helps coordinate support through your recovery. The American Trauma Society specially trains the TSN Coordinator to provide helpful resources and support during recovery after a significant trauma.

TRAUMA SURVIVORS NETWORK (TSN) PEER VISITORS

All Peer Visitors have received hospital training as volunteers and specialized training as peer visitors. Although Peer Visitors are not trained counselors and will not offer medical, legal, or personal advice, they understand the concerns of a new trauma patient and provide a "been there, done that" perspective. They are available upon request through the TSN Coordinator.

6. INSURANCE AND DISABILITY INFORMATION

After experiencing a trauma, it may be difficult to return to work, causing financial restraints. Below are a few programs that might be able to assist. This list is meant to be a tool; not everyone will qualify.

INSURANCE AND DISABILITY

Insurance coverage for trauma patients can be very complex. A financial counselor can help with insurance and payment questions.

FINANCIAL ASSISTANCE

We strive to meet the health care needs of all patients who seek inpatient, outpatient and emergency services. PVHMC is committed to providing access to financial assistance programs when patients are uninsured or underinsured and may need help paying their hospital bills. These programs include government-sponsored coverage programs, charity care and discount partial charity care as defined in our Financial Assistance Policy and Financial Assistance application.

For questions regarding financial assistance, please call 909.469.9441.
Website: wwwpvhmc.org/financialassistance.

DISABILITY PAYMENTS

Payments to help a patient through long-term or short-term disability are different. Patients or family members are responsible for applying for these payments. Pomona Valley Hospital Medical Center is not directly affiliated with the State of California. If you have questions regarding your disability, please contact your employer or Employment Development Department (EDD) office directly. EDD website: https://edd.ca.gov/disability/

APPLYING FOR SHORT-TERM DISABILITY

Your loved one may be entitled to short-term disability through an employer. If you are applying for short-term disability, please remember:

- Sign everything on the form that needs to be signed and identify the fax number at work where the forms should be sent (usually the Human or Personnel Services office).
- Doctors complete the forms in their offices. The office staff returns the papers to you to submit to your employer, or the doctor may fax the forms directly to the employer.
- For questions about your forms, contact your physician's office. Completion of these forms typically takes 7-10 business days.

SOCIAL SECURITY: SUPPLEMENTAL SECURITY INCOME (SSI)

Social Security pays benefits to people who cannot work because they have a medical condition that is expected to last at least one year or result in death. You must also meet certain income limits set by the Social Security Administration (SSA). The Social Security website (www.ssa.gov) is easy to use if you apply for Supplemental Security Income (SSI). You can call (800) 772-1213 or visit your local Social Security office if you have additional questions. It takes many months to process an application, so it is a good idea to get started quickly.

SOCIAL SECURITY DISABILITY INSURANCE (SSDI):

Social Security Disability Insurance (SSDI) is an insurance program that pays out if you suffer a long-term or permanent disability. You pay into this program when you pay taxes out of your paychecks. Each quarter you

work, you earn credit. To qualify for SSDI, you must have earned enough credits and be determined to be disabled by SSA. Applications can be completed online or in person.

Visit the SSA website to apply or for more information - www.ssa.gov, or call SSA at (800) 772-1213.

STATE DISABILITY INSURANCE (SDI):

State Disability Insurance (SDI) provides partial wage replacement to eligible California workers who cannot work due to a non-work-related illness, injury, or pregnancy. SDI benefits are payable for a maximum of 52 weeks. To apply, your primary care physician must complete the "physician/practitioner certification" portion of the application. Applications are available online, or you may contact the human resources department at your place of employment.

Please visit the State of California Employment Development Department website for more information or to apply online at www.edd.ca.gov.

LETTERS FOR EMPLOYERS, SCHOOLS AND OTHERS

The hospital can provide a basic verification letter to send to employers, schools or courts to inform them that you are in the hospital. Ask your nurse or case manager for the letters. They are available only while you are in the hospital. After discharge, you will need to contact your doctor's office directly.

BACK TO WORK RESOURCES FOR THE DISABLED

Work Incentives Planning and Assistance Program (WIPA)

Provides information on how to work or go to school and has social security benefits. See the website for providers in your area, put in your zip code and listings in your area will appear.
http://www.chooseworkttw.net/findhelp/

Center for Employment Training (CET)

Skills Training and Human Development, 1-800-533-2519
http://cetweb.org/for-students/locations/

Job Accommodation Network (JAN)

JAN's trusted consultants offer one-on-one guidance on workplace accommodations, the Americans with Disabilities Act (ADA) and related legislation, and self-employment and entrepreneurship options for people with disabilities. Assistance is available both over the phone and online.
1800-526-7234
http://askjan.org/

Department of Workforce Development- Help

1-800-451-5627
http://www.csb-win.org/vosnet/Default.aspx

Exceed

Disability Vocational Training, 1-800-647-3451
http://www.weexceed.org/about/locations

DISCHARGE

7. AFTER THE HOSPITAL: PLANNING FOR DISCHARGE

Many people need specialized care after they leave the hospital. This can include:

- Special equipment
- Nursing care
- Physical therapy
- Occupational therapy
- Speech therapy

A case manager will work with you to make a plan. They may talk with your insurance company to see what it will pay. They can also help you arrange care. If you do not have health insurance, the financial counselor can help you find out where to apply for assistance.

LEVELS OF CARE IN THE COMMUNITY

Each person, injury and path to recovery is different. Your trauma team will tell you which level of care will meet your needs. Your case manager will help you find the care you need. They will consider your insurance and your ability to pay. Levels of care include:

ACUTE REHABILITATION HOSPITAL

People who require acute physical therapy and have the ability to participate in three hours or more of therapy each day may be able to go to an acute rehabilitation hospital.

LONG-TERM ACUTE CARE HOSPITAL (LTAC)

A long-term acute care hospital is a specialty-care hospital that provides specialized and extended medical treatments to clinically complex patients for an extended period. The average length of the stay could be 25-30 days.

SUB-ACUTE / SKILLED NURSING FACILITY (SNF)

People who are not well enough to do three hours of therapy each day but who still need therapy may benefit from a short stay at a skilled nursing facility (SNF). A SNF provides short-term nursing care. Such care is available at many nursing homes and can be arranged by your case manager. You can request a list of facilities contracted with your insurance and pick your top choices to see if there is availability.

HOME HEALTH CARE

Home health care is a service that is provided at home. They provide many services, including medication management, wound care and physical therapy. These visits are typically short, a few times a week, and require an order from a physician. The case manager will assist in arranging these services. They can also give you the name and phone number of a home health agency.

HOME WITH NO HOME CARE / OUTPATIENT FOLLOW-UP CARE

Many people do not need home care from a nurse or therapist. They are discharged to the care of their family. The trauma doctor may tell you to come back to see them or to see your doctor after you are discharged. You will need to make your own appointments with the physician's office.

PAIN MANAGEMENT

Helping trauma survivors manage pain effectively requires a well-rounded approach. This includes using medicine, both strong pain relievers and over-the-counter options, as well as other methods that don't involve drugs. These include distraction techniques, applying ice or heat, changing positions, music, meditation or physical therapy. Combining multiple approaches is often more effective in managing pain.

It is also essential to understand how physical trauma can impact a person's mental health and their experience of pain. By taking a holistic view that addresses both physical and emotional needs, we can provide better support and care for those dealing with pain after trauma.

Our goal in pain management for trauma survivors is to reduce pain enough to facilitate early movement and mobilization. We tailor pain management strategies to meet the specific needs of each survivor. Some survivors may develop chronic pain that requires ongoing treatment from their primary caregiver or a pain specialist.

Additionally, survivors should be aware that using opioid medications carries the risk of misuse or addiction. If you have any questions regarding this information, please discuss them with your trauma provider.

SKILLED NURSING FACILITY PREFERENCES

1._____
2. _____
3. _____
4. _____
5. _____

REHABILITATION PREFERENCES

1. _____
2. _____
3. _____
4. _____
5. _____

RECOVERY

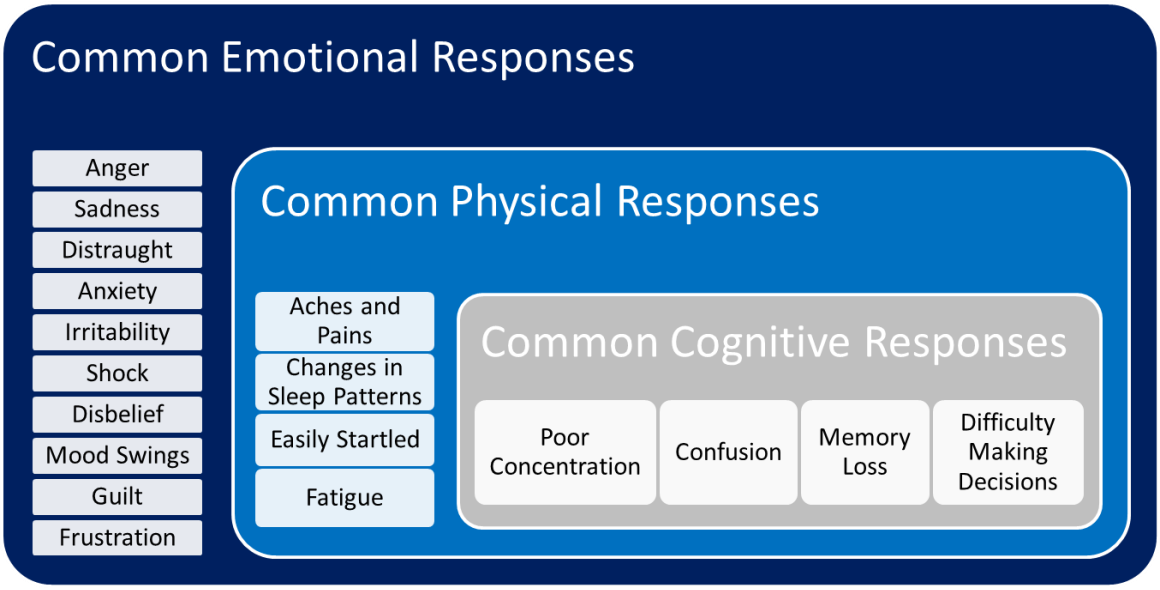
8. YOUR RESPONSE TO YOUR LOVED ONE'S INJURY: GRIEF AND LOSS

Just as our bodies can be traumatized, so can our minds. Trauma can affect your emotions and will to live. The effect may be so significant that your usual ways of thinking and feeling may change. The ways you used to handle stress may no longer work.

Patients may have a delayed reaction to their trauma. In the hospital, they may focus on their physical recovery rather than their emotions. As they face their recovery, they may have a range of feelings, from relief to intense anxiety and depression. Family members also may go through a range of emotions between first hearing the news of the injury and on through the patient's recovery.

Trauma patients and their families often feel loss on some level. The loss may relate to changes in health, income, family routine or dreams for the future. Each person responds to these changes in their own way. Grief is a common response. When it does not get better, it can delay recovery and add to family problems. Knowing the early signs of depression and post-traumatic stress syndrome (PTSD) is important.

After a trauma, you may experience a wide range of emotions, this is normal. Remember, everyone copes differently, and it is important to allow yourself time to heal mentally and physically.



HEALTHY WAYS TO COPE AFTER A TRAUMA

- Accept your feelings
- Be patient with yourself
- Acknowledge that some people may not understand what you are going through
- Mobilize your support system
- Meditation and prayer
- Humor
- Journal
- Think of ways that have helped you deal with prior stressors

HOW TO SUPPORT YOUR LOVED ONE THAT HAS SUFFERED A TRAUMA

- Listen
- Accept silence
- Allow the individual to express their needs and feelings
- Do not be judgmental
- Give support and companionship
- Be patient and understanding
- Offer practical support
- Give time and space

SELF-CARE

While your loved one is hospitalized, it is very important that you take care of yourself. Having an injured/sick loved one can be overwhelming and stressful. Here are a few suggestions on how you can care for yourself:

- Take breaks
- Eat regular meals and drink plenty of water
- Take walks around the hospital
- Get plenty of sleep
- Take notes to not overload your brain with information
- Accept support/help at home

Following these suggestions will help you remain energized and help you think better. Keeping your strength and avoiding becoming fatigued will prevent you from becoming ill.

COPING WITH LOSS

The stress that goes with trauma and grief can affect your health. It can also affect your decision-making during the first several months after the trauma. It is important for you to try to eat well, sleep and exercise. If you have any long-term health problems, such as heart disease, be sure to stay in contact with your doctor.

Part of recovery involves using the help of others. You can also find a support system. This can be a friend, family member, a member of the clergy, a support group or another person who has experienced similar loss. Not everyone knows what to say or how to be helpful. Some people avoid those who have experienced a trauma in their family because it makes them uncomfortable. Finding friends or family who can be good listeners may take some time.

WHEN A PATIENT DIES

Few things in life are as painful as the death of a loved one. We all feel grief when we lose a loved one. Grief is also a very personal response. It can dominate one's emotions for many months or years. For most people, the intensity of initial grief changes over time. It may take both time and help to move from suffering to a way of remembering and honoring your loved one.

WHEN IS IT A GOOD IDEA TO SEEK PROFESSIONAL HELP?

SOMETIMES, GRIEF OVERWHELMS US. THIS IS WHEN PROFESSIONAL HELP IS USEFUL.

YOU MAY NEED TO SEEK PROFESSIONAL HELP IF:

- The grief is constant after about six months
- There are symptoms of PTSD or major depression
- Your reaction interferes with daily life
- You have suicidal and/or homicidal thoughts or ideation
- You have prolonged agitation or anxiety
- You have depression and hopelessness
- You have uncontrolled rage
- You are in a psychotic state
- You are abusing alcohol or drugs as a means of coping

If you or someone you know is struggling or in crisis, help is available:

Call or text 988 or **visit 988lifeline.org**.

9. IS IT STRESS, DEPRESSION, OR POST-TRAUMATIC STRESS DISORDER?

Going through a traumatic injury can cause a range of strong emotions. These emotions are perfectly normal. For some people, distress resolves over time. For others, it may hold steady or increase. Depression and Post Traumatic Stress Disorder (PTSD) are prevalent and increasing among trauma patients; these conditions can significantly impact quality of life. Within the first year after injury, an estimated 23% of traumatically injured survivors develop symptoms of depression and an estimated 21% develop symptoms of PTSD.

WHAT IS DEPRESSION?

Depression is a common and serious medical illness that negatively affects how you feel, the way you think and how you act. Fortunately, it is also treatable. Depression causes feelings of sadness and/or a loss of interest in activities you once enjoyed. It can lead to a variety of emotional and physical problems and can decrease your ability to function at work and home. Symptoms of depression can vary from mild to severe and can include:

- Sadness
- Loss of interest or pleasure in activities you once enjoyed
- Changes in appetite – weight loss or gain
- Anxiousness
- Crying spells
- Difficulty sleeping or sleeping too much
- Loss of energy or increased fatigue
- Feeling worthless or guilty
- Difficulty thinking, concentrating or making decisions
- Anger
- Irritability
- Grief or self-doubt
- Thoughts of death or suicide

After a trauma, people may have some PTSD symptoms, but that does not mean they have PTSD. PTSD means having a certain number of symptoms for a certain length of time. There are three types of PTSD:

Type	Symptoms
Hypervigilance	Having a hard time falling asleep or staying asleep Feeling irritable or having outbursts of anger Having a hard time concentrating Having an exaggerated startle response
Re-experiencing	Having recurrent recollections of the event Having recurrent dreams about the event Acting or feeling as if the event were happening again (hallucinations or flashbacks) Feeling distress when exposed to cues that resemble the event
Avoidance	Avoiding thoughts, feelings, conversations, activities, places or people that are reminders of the event Less interest or participation in activities that used to be important Feeling detached; not able to feel

Only a mental health professional can diagnose PTSD, but if a friend or family member notices any of the symptoms, it may be a sign that help is needed.

10. WISDOM FROM OTHER TRAUMA PATIENTS AND THEIR FAMILIES

- Dates and times for medical procedures, tests or even discharge from the hospital are not set in stone. There are usually many factors or people involved, and things do not always work out as planned. For instance, if you are scheduled for an MRI but an emergency case comes into the unit, they must handle the emergency first. Dates and times are targets, not guarantees.

- Don't be afraid to ask for pain medicine. However, keep in mind that the staff must follow a process, and it may take a while to fill the request. Your nurse must get your doctor's OK before you receive any medications.

- Get involved in your treatment. You have the right to know your options and discuss them with your doctor. If you are told that you need a specific test, feel free to ask for an explanation of the test and what that test will show.

- Get a person's name at your insurance company and try to always talk to that person. The case manager at the hospital may be able to help you find this person. It is easier for you and the insurance person too. Having someone who knows your case can be very helpful when the bills start rolling in.

- Physical therapy can be very important. Muscles weaken quickly, and any activity you can handle will help you recover more quickly. Try to arrange for pain medication about 30 minutes before you have physical therapy. If you do this, your therapy may not hurt so much, and you will be able to do more and make better progress.

- Plan ahead. Your discharge from the hospital may come more quickly than you expect, even before you feel ready to go. The best way to be prepared is to make plans early. Ask your nurse about what kind of help is available to arrange for rehab, home care, equipment or follow-up appointments. Even if you plan ahead, you may find that you need other equipment or devices after you return home. Don't panic! Your home care provider or doctor's office can help you once you are home.

- Be patient with yourself. Your recovery may not always follow a "straight line." You may feel good one day, then tired and cranky the next. It can be frustrating to feel like you're losing ground, but you'll need to be patient and focus on your progress over time.

- Take notes. Ask a family member or friend to keep a journal of what happens during your hospital stay. These notes may be interesting to you in the future.

- Ask for help. Being in the hospital disrupts every bit of your life – routines, schedules, relationships and plans. You are probably used to being very independent, but you now rely on other people for help. Your family and friends probably want to help out in any way they can. They only need your invitation.

11. ABOUT THE AMERICAN TRAUMA SOCIETY AND THE TRAUMA SURVIVORS NETWORK

The American Trauma Society (ATS) is a leading group in trauma care and prevention. We have been an advocate for trauma survivors for the past 30 years. Our mission is to save lives through improved trauma care and injury prevention. For details, go to www.amtrauma.org.

The ATS knows that serious injury is a challenge. To help, the ATS has joined with your trauma center to help you through this difficult time. The goal of TSN is to help trauma survivors and their families connect and rebuild their lives.

The TSN is committed to:

- Training health care providers to deliver the best support to patients and their families
- Connecting survivors with peer mentors and support groups
- Enhancing survivor skills to manage day-to-day challenges
- Providing practical information and referrals
- Developing online communities of support

The TSN offers its services together with local trauma centers. These services can include:

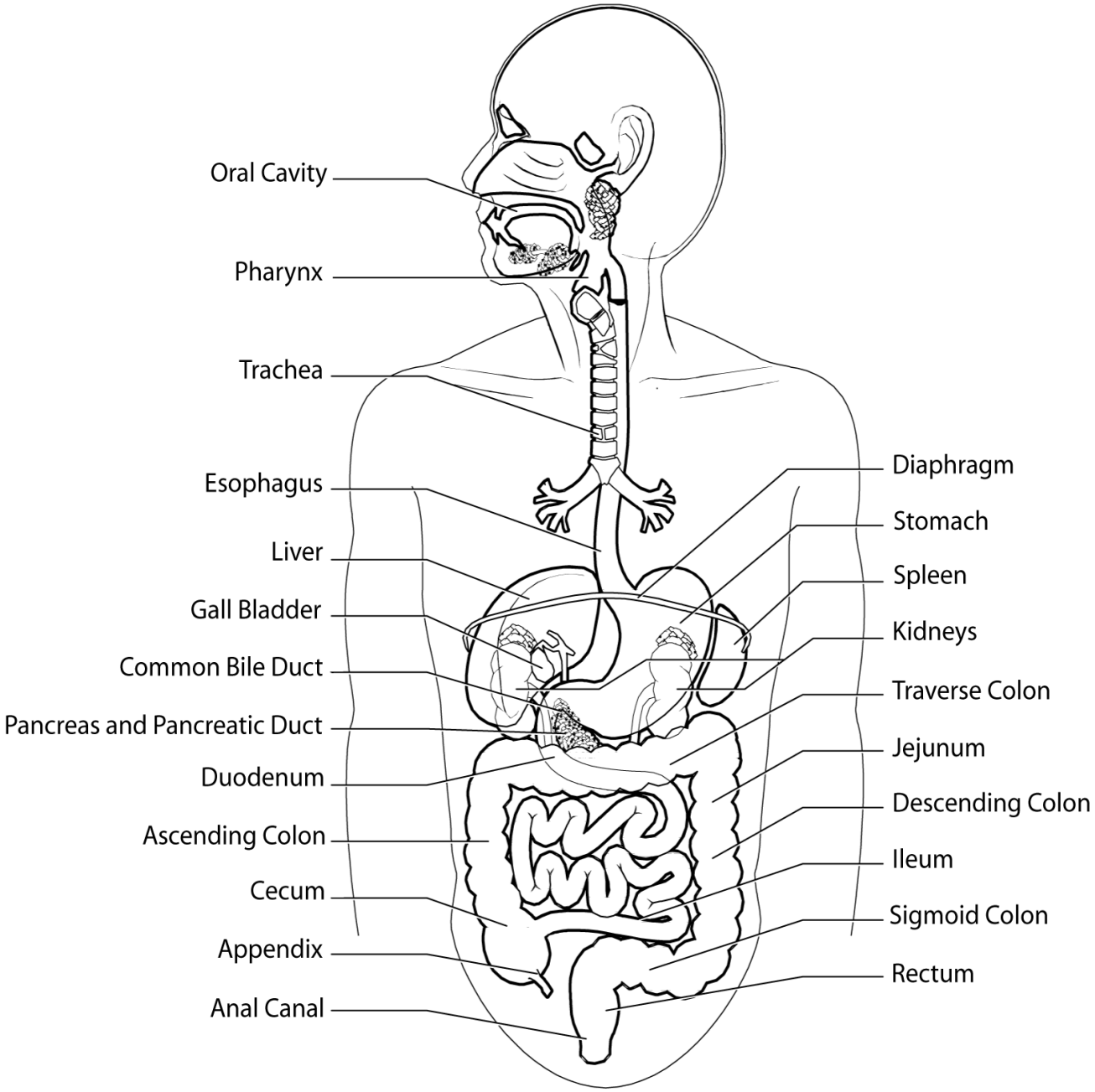
- A link to Carepages, which helps you talk with friends and family about your injured loved one
- An online library where you can learn about common injuries and treatments
- This Patient & Family Handbook
- An online forum where trauma survivors and their families can share experiences
- Trauma Support Groups for survivors
- Family Class to support family members
- NextSteps© Classes - an interactive program to help survivors manage life after an injury
- Peer Visitors who provide support to current Trauma Survivors while they are hospitalized

Please take a moment to explore the TSN programs and services by visiting the website at www.traumasurvivorsnetwork.org. If you think we can help you—or if you want to help support and inspire others—join the TSN today! Joining takes only a minute of your time and is **completely free**.

To join TSN for FREE, visit https://traumasurvivorsnetwork.org/signup and choose Pomona Valley Hospital Medical Center as your Trauma Center.

When you have experienced a major event in your life, like being injured, it is helpful to talk with other people who are facing similar challenges. Currently, we offer a FREE peer support program called **NextSteps©**. **NextSteps** is a six-week online class where trauma survivors work with trained group leaders to explore how life has changed. You will also learn how to move forward on the road to recovery. Sign up at https://nextstepsonline.org/signup.

COMMON INJURIES



12. COMMON TRAUMATIC INJURIES AND THEIR TREATMENT

Injuries may be due to blunt or penetrating forces. Blunt injuries occur when an outside force strikes the body. These injuries occur because of a motor vehicle crash, a fall or an assault. Penetrating trauma occurs when an object, such as a bullet or knife, pierces the body. Sometimes, patients have both types of injuries.

This section of the handbook describes some common types of injuries people have and how they are typically treated. The trauma staff can give you more details about your loved one's injuries. At the end of the book, there is a place for you to list these injuries.

HEAD INJURIES

A traumatic brain injury, sometimes called a TBI, is an injury to the brain due to blunt or penetrating trauma. There are many types of brain injuries:

- **Cerebral concussion:** brief loss of consciousness after a blow to the head. A head scan does not show this injury; a mild concussion may produce a brief period of confusion; it is also common to have some loss of memory about the events that caused the injury.
- **Cerebral contusion:** contusion means bruising, so a cerebral contusion is bruising of the brain; this can occur under a skull fracture. It can also be due to a powerful blow to the head that causes the brain to shift and bounce against the skull.
- **Skull fracture:** cracks in the bones of the skull caused by blunt or penetrating trauma; the brain or blood vessels may also be injured.
- **Hematomas:** head injuries and skull fractures may cause tearing and cutting of the blood vessels carrying blood into the brain. This may cause a blood clot to form in or on top of the brain. A blood clot in the brain is referred to as a hematoma. There are several types of hematomas:
  - **Subdural hematoma:** bleeding occurs when a vein on the outside of the brain is damaged; a blood clot slowly forms and puts pressure on the outside of the brain.
  - **Epidural hematoma:** bleeding that occurs when an artery on the outside of the brain is injured; a blood clot can occur quickly and put pressure on the outside of the brain.
  - **Intracerebral hematoma:** bleeding inside the brain itself; it usually happens when blood vessels rupture deep within the brain.

A traumatic brain injury that is described as "mild" implies that there was little or no loss of consciousness at the time of injury. These types of injuries often are not reported or treated. Neurological exams may appear normal, making it hard to diagnose the injury. Symptoms usually appear later. Such symptoms may include foggy memory, hard time solving problems, headaches, dizziness, nausea, fatigue, mood swings, anxiety, depression, disorientation and delayed motor response.

Diagnosis and Evaluation

The trauma team watches patients with a head injury very closely, including:

- Checking the patient's pupils with a light.
- Checking the level of consciousness. They use the Glasgow Coma Scale (GCS) to determine how badly the brain has been injured. The GCS includes testing for eye opening, talking and movement. Scores range from a high of 15 (normal) to a low of 3 (coma from injury or drugs).
- Checking to see if a patient reacts to touch or if they feel dull, sharp or tingling feelings.

When doctors think that a patient has a brain injury, they often order a scan of the brain (CT scan). This scan can find out if there is swelling, bleeding or a blood clot.

Treatment

Doctors base treatment for a brain injury on the injury type and location. Treatments may include:

- Medications to lower brain pressure, lower anxiety and medicines that change the fluid levels in the brain.
- Intracranial pressure monitoring (ICP) measures pressure in the brain. There are two types of monitors: one kind of monitoring tube only measures brain pressure. The other monitoring tube is placed into a small space in the brain. It measures brain pressure and can drain fluid if needed.
- A shunt is a tube placed to drain excess fluid in the brain. This is done in the operating room.
- Craniotomy is an opening in the skull to remove a clot and lower brain pressure. This is done in the operating room.
- A craniectomy involves removing a part of the skull bone to give the brain more room to swell. This type of surgery may also be done when a clot is removed. The skull bone is replaced when the patient is better (usually several months later).

CHEST INJURIES

Chest injuries may be life-threatening if the lungs are bruised. The goal of early trauma care is to protect breathing and blood flow. Types of chest injuries include:

- **Rib fractures**: the most common type of chest injury; they can be very painful but will usually heal without surgery in three to six weeks.
- **Flail chest:** two or more ribs are broken in more than two places and the chest wall is not working as it should during breathing.
- **Hemothorax:** blood pools in the chest cavity, often due to rib fractures.
- **Pneumothorax**: air collects in the chest cavity due to an injured lung.
- **Hemo-pneumothorax**: both air and blood collect in the chest cavity.
- **Pulmonary contusion**: bruising of the lung; if severe, it can be life-threatening because bruised lung tissue does not use oxygen well.

Diagnosis and Evaluation

Doctors often use a chest X-ray or CT/CAT scan to learn more about the injury. They can tell how the lungs use oxygen by taking some blood from an artery. They may need to open the chest to examine and treat the injury.

Treatment

The goals are to increase oxygen to the lungs, control pain and prevent pneumonia. Doctors and nurses may ask the patient to cough and do deep-breathing exercises, which help the lungs heal. They will also tell the patient to stop smoking. The doctor will order drugs to treat pain and soreness.

It is important that the patient takes part in the healing process. It greatly reduces the risk of other problems, such as pneumonia or lung collapse, which may need to be treated with a ventilator (breathing machine).

ABDOMINAL INJURIES

Blunt/penetrating abdominal trauma can injure organs like the liver, spleen, kidney or stomach. Injuries may include:

- **Lacerations:** cuts
- **Contusions:** bruises
- **Ruptures**: severe tearing of the tissue or organ

Diagnosis and Evaluation

There are many ways to diagnose an abdominal injury, including:

- Physical examination
- CT scan
- A blood count to check hemoglobin and hematocrit, two measures of blood loss
- Ultrasound
- Surgery is called a laparotomy, in which the surgeon makes an incision in the abdominal area

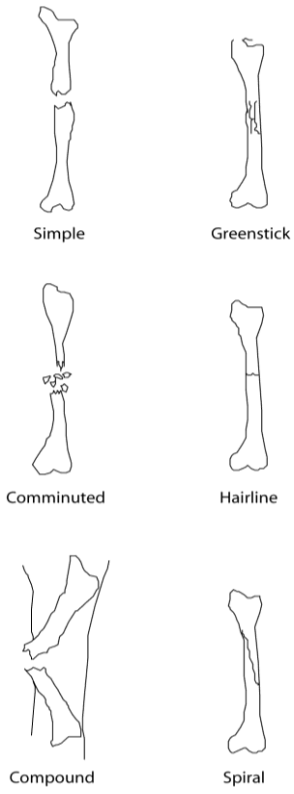
Treatment

Treatment depends on the organ that is injured and the severity of the injury. It may range from watching the patient closely to surgery. Many injuries to the kidney, spleen or liver can be treated without surgery. However, severe injuries to the abdomen often require surgery.

BONE, LIGAMENT AND JOINT INJURIES

Blunt and penetrating trauma can harm bones, ligaments and joints. Types of fractures or broken bones include:

- **Open or compound fracture**: a broken bone pushes through the skin; it is serious because the wound and the bone may get infected.
- **Closed fracture**: the broken bone does not pierce the skin.
- **Greenstick fracture**: a bone that is partly bent and partly broken; occurs most often in children.
- **Spiral fracture**: a break that follows a line like a corkscrew.
- **Transverse fracture**: a break that is at right angles to the long axis of the bone.
- **Comminuted fracture**: a bone that is broken into many pieces.
- **Hairline fracture**: a break that shows on an X-ray as a very thin line that does not extend entirely through the bone; all parts of the bone still line up perfectly.



Diagnosis

Doctors can usually see whether most bones are broken by using regular X-rays. However, for other bones, doctors may use a CT scan. To find out if there is any damage to joints or ligaments, doctors may do a magnetic resonance imaging scan (MRI).

Treatment

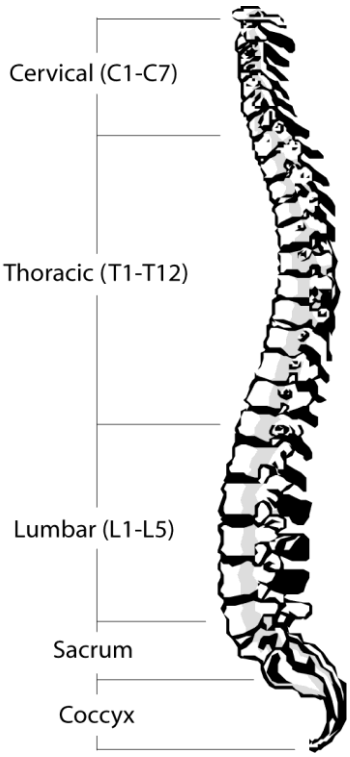
Treatment for a broken bone depends on the type, severity, location and whether the tissue around the bone is damaged. A doctor may choose to treat a fracture in several different ways:

- A cast, sling or splint.
- Closed reduction: moving the limb or joint to its normal position without open surgery. Pain or sedation drugs are used during the procedure.
- Open reduction: Surgery that returns the bone to its normal position. Surgeons may use pins, wires, plates and/or screws to hold the bone together.
- External fixator: the surgeon puts pins in the bone above and below the break and connects the pins to bars outside the skin that hold the bones together to heal. The doctor takes the fixator off after the fracture heals.

SPINAL CORD INJURY

Blunt or penetrating trauma can injure the spinal cord. Two main types of injury can occur:

- Quadriplegia (also called tetraplegia) is injury to the spinal cord from the first cervical vertebra (C1) to the first thoracic vertebra (T1) level (see section under Anatomy). This means the patient has paralysis of (cannot move) the arms and legs. Injury at or above the C4 level affects breathing, and patients often need a ventilator (a breathing machine).
- Paraplegia: injury to the spinal cord from the second thoracic vertebra (T2) to the 12th thoracic vertebra (T12), causing paralysis of both legs and possibly the chest and abdomen.



Doctors may also say the patient has a complete or an incomplete injury:

- A complete spinal cord injury means that the patient cannot move and has no feeling. It does not always mean that the spinal cord has been cut in two.
- An incomplete spinal cord injury means the patient has some movement or feeling. Incomplete injuries may be to the back, front or central part of the spinal cord. With an injury to the back part of the spinal cord, the patient may have movement but is unable to feel that movement. With an injury to the front part of the cord, the patient may lose movement but may still be able to feel touch and temperature. An incomplete injury may get better in time. It is hard to know when or if the full function will return.

Diagnosis and Evaluation

Doctors use physical exams, X-rays, CT scans and Magnetic Resonance Imaging (MRI) scans to diagnose a spinal cord injury. X-rays do not show the spinal cord itself but do show damage to the vertebral column or the bones around the spinal cord. CT scans and MRIs give the best picture of the spinal cord and bones. Sometimes, doctors cannot do an MRI because of other injuries the patient has, the patient's weight, or because the patient has a pacemaker, monitor or other metal device. In these cases, doctors use other tests to evaluate the patient.

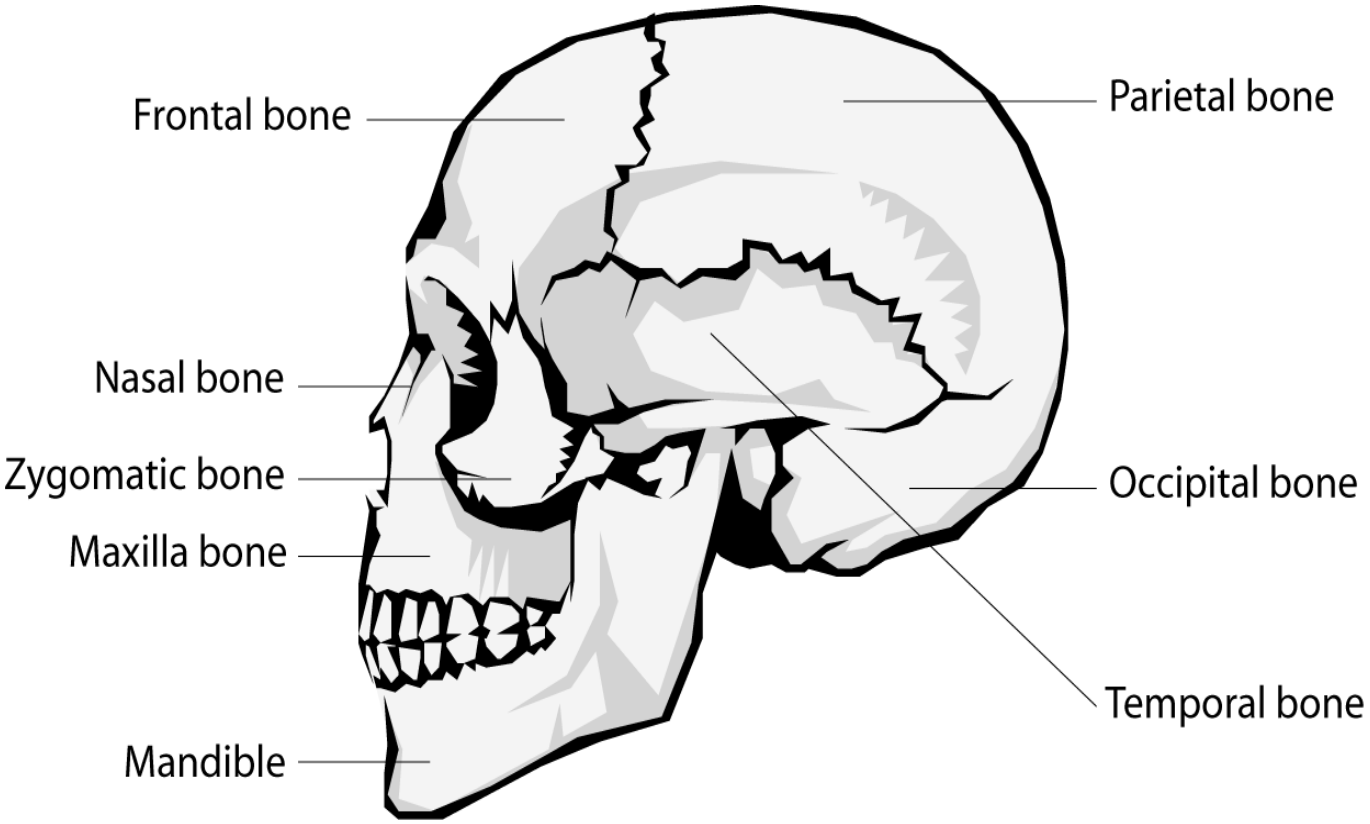
Treatment

Patients need special attention to bladder and bowel function and skin care. They may need surgery to give support to the spine. Surgery may not change paralysis but will allow the patient to sit up. Talk with the surgeon about the goals of surgery. In any case, getting out of bed improves healing, the sense of well-being, and lowers the risk of pneumonia, pressure sores and blood clots.

Patients with spinal cord injuries receive special attention to prevent pressure sores and a condition called autonomic dysreflexia:

- Pressure sores (also known as pressure ulcers or decubitus) are breakdowns in the skin caused by constant pressure on one area and decreased blood flow from not moving. Pressure sores can occur on the bottom, hips, back, shoulders, elbows and heels. Skin redness is the first sign that a sore may be starting, so it is important to check the skin every day to prevent these sores. If a sore occurs, it can take many months to heal or even need surgery. Moving the patient from side to side and propping up the feet can help prevent pressure sores.
- Autonomic dysreflexia may occur when the spinal cord injury is at or above the T6 level. It means that messages about blood pressure control are not being sent as they should be. As a result, when blood pressure goes up due to pain (for instance), it may not return to normal once the pain is treated. High blood pressure can cause a stroke, so it is very important to know the warning signs and find the cause. Signs of autonomic dysreflexia include headache, seeing spots or blurred vision, sweating, or flushing (redness) of the skin.

MEDICAL TERMS



13. GLOSSARY OF COMMON MEDICAL TERMS (A-Z)

PROCEDURES, EQUIPMENT AND COMMON TERMS

Ambu bag: a device used to help patients breathe.

Anoxia: a lack of oxygen to the brain.

Anticoagulation: delaying the clotting of blood.

Blood pressure cuff: a wrap that goes around the arm or leg and is attached to the heart monitor. The cuff lightly squeezes the arm or leg to measure blood pressure.

Brain Death: complete and irreversible loss of function of the entire brain, including the brain stem.

Central Line or Central Venous Catheter: a large plastic tube inserted into a large central vein (typically in the neck), which allows for the administration of medications, fluids and blood.

Cervical collar (C-collar): a hard plastic collar placed around the neck to keep it from moving. Most patients have a C-collar until the doctor can be sure that there is no spine injury. If there is no injury, the doctor will remove the collar.

Code Status: describes the type of interventions a health care team will perform if a patient's heart stops beating or if they stop breathing.

Coma: a state of prolonged loss of consciousness.

Computerized Axial Tomography (CAT or CT Scan): scans provide detailed images of tissues, organs and bones.

Concussion: a temporary loss of consciousness due to an injury to the head.

Continuous Passive Motion (CPM): a machine that gives constant movement to selected joints. It is often used in the hospital after surgery to reduce problems and help recovery.

Contusion: a bruise.

Craniotomy: making a surgical incision through the cranium (the part of the skull that encloses the brain); usually done to relieve pressure around the brain.

Craniectomy: removing part of the skull bone to give the brain more room to swell. This type of surgery may also be done when a clot is removed. The skull bone is replaced when the patient is better (usually several months later).

ECG/EKG (electrocardiogram): a painless tracing of the heart's electrical activity. The ECG gives important information about heart rhythms and heart damage.

Edema: swelling when too much fluid collects in the tissues or organs.

Endotracheal tube: a tube that is put in the patient's mouth and down into the lungs to help with breathing. The patient cannot talk while it is in place because the tube passes through the vocal cords. When it is taken out, the patient can speak but may have a sore throat.

Extubate/Extubation: removal of the endotracheal tube.

Foley Catheter: a tube placed in the bladder to collect urine.

Gastrostomy: surgery to open the stomach to place a feeding tube. This surgery is often done at the bedside. The feeding tube is usually temporary. The doctor may remove it when the patient can eat food.

Glasgow Coma Scale (GCS): scale used to determine the level of consciousness.

Halo: a device used to keep the neck from moving during a cervical spine injury.

Higher level of care: facilities that provide highly specialized expertise, equipment, or complex treatment and procedures.

In-network: providers or health facilities part of a health plan's network.

Intensivist: a medical doctor with specialized training and experience treating critically ill patients.

Intracranial Pressure (ICP) Monitor: a tube placed in the brain to measure pressure caused by excess fluid.

Intraosseous: a needle inserted directly into the bone marrow.

IV fluid: fluid put in the vein to give the patient drugs and nutrition (food).

IV pump: a machine that gives a precise rate of fluids and/or drugs into the vein.

Jejunostomy: surgery to make an opening in the small intestine to place a feeding tube. The feeding tube is often temporary. The doctor may remove it when the patient is able to eat food.

Laparotomy: surgery that opens the abdomen so doctors can examine and treat organs, blood vessels or arteries.

Nasogastric (NG) tube: a tube put into the patient's nose to give medications and nutrition (food) directly into the stomach. It can also be used to get rid of excess fluids from the stomach.

NPO: nothing by mouth.

Orthotic: a device, such as a splint, which keeps a part of the body from moving around.

Post-concussive syndrome: a group of symptoms that occur after a blunt head injury to the head. Symptoms may include dizziness and changes in behavior.

Prosthetic: a device that replaces a missing body part, such as a leg, arm, or eye.

Pulmonary artery catheter: a line placed into a shoulder or neck vein to measure heart pressure and to tell how well the heart is working.

Pulse oximeter: an electronic device placed on the finger, toe, or ear lobe to check oxygen levels.

Shunt: a tube that is surgically placed to drain excess fluid from within the brain.

Suction: a procedure to remove secretions from the mouth and lungs. Doctors also use suction to remove fluid during surgery.

Thoracotomy: surgery to open the chest.

Tracheostomy: a surgical procedure often done at the bedside to insert a breathing tube just above the windpipe (trachea). When completed, the breathing tube in the mouth is removed. The tracheostomy tube may be removed when the patient can breathe and cough up secretions on their own.

Traumatic brain injury (TBI): damage to the brain from an injury.

Triple lumen catheter: a line placed into a shoulder or neck vein to give IV fluids and drugs.

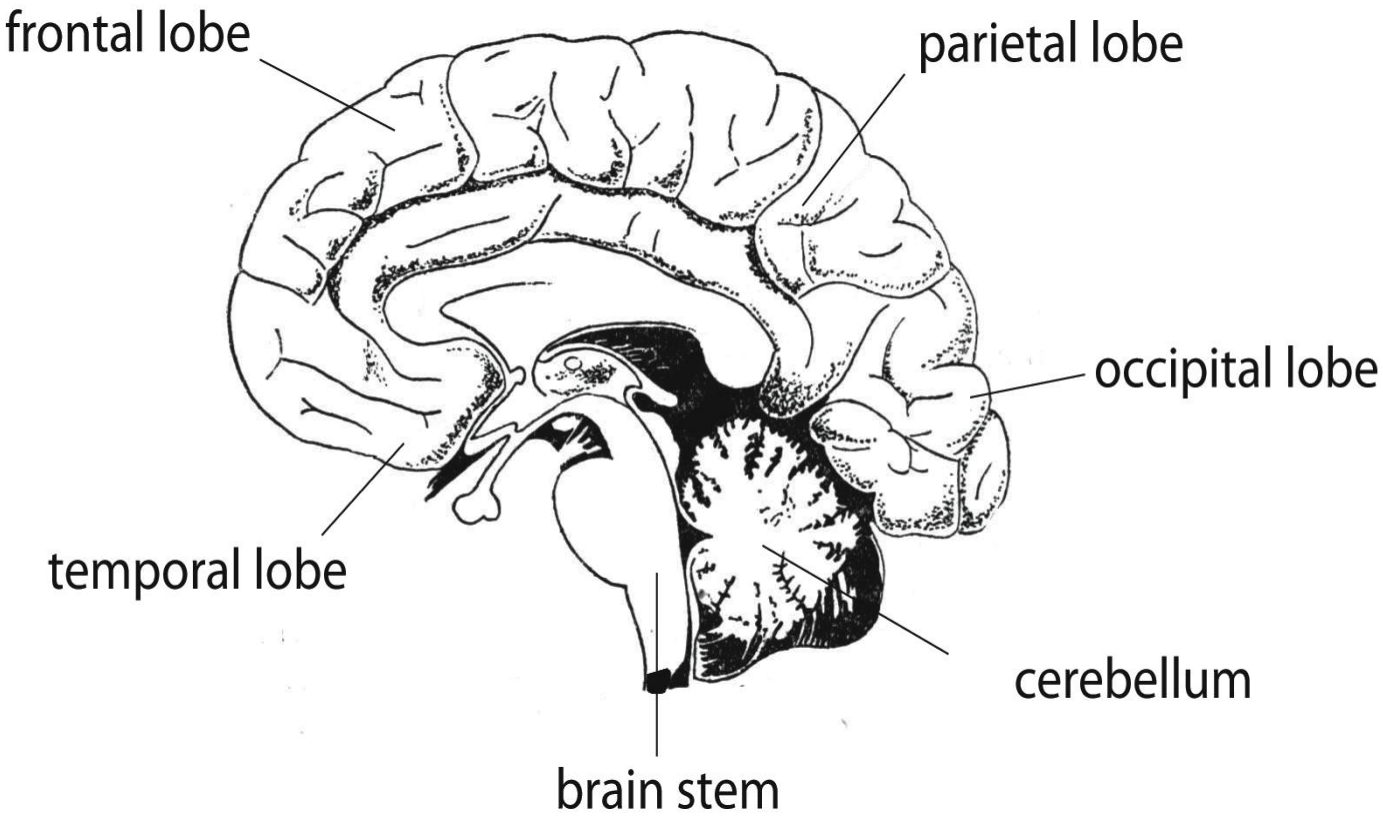
Tube feeding pump: a machine that gives fluid and nutrition (food) through a tube in the stomach or small intestine.

Ventilator: a breathing machine, sometimes called a respirator, that helps patients breathe and gives oxygen.

Vital signs: measure blood pressure, heart rate, breathing and temperature.

Weaning: the gradual tapering of treatment and/or medications.

ANATOMY


frontal lobe
parietal lobe
occipital lobe
temporal lobe
cerebellum
brain stem

BONES, SKELETAL

Acetabulum: the hip socket.

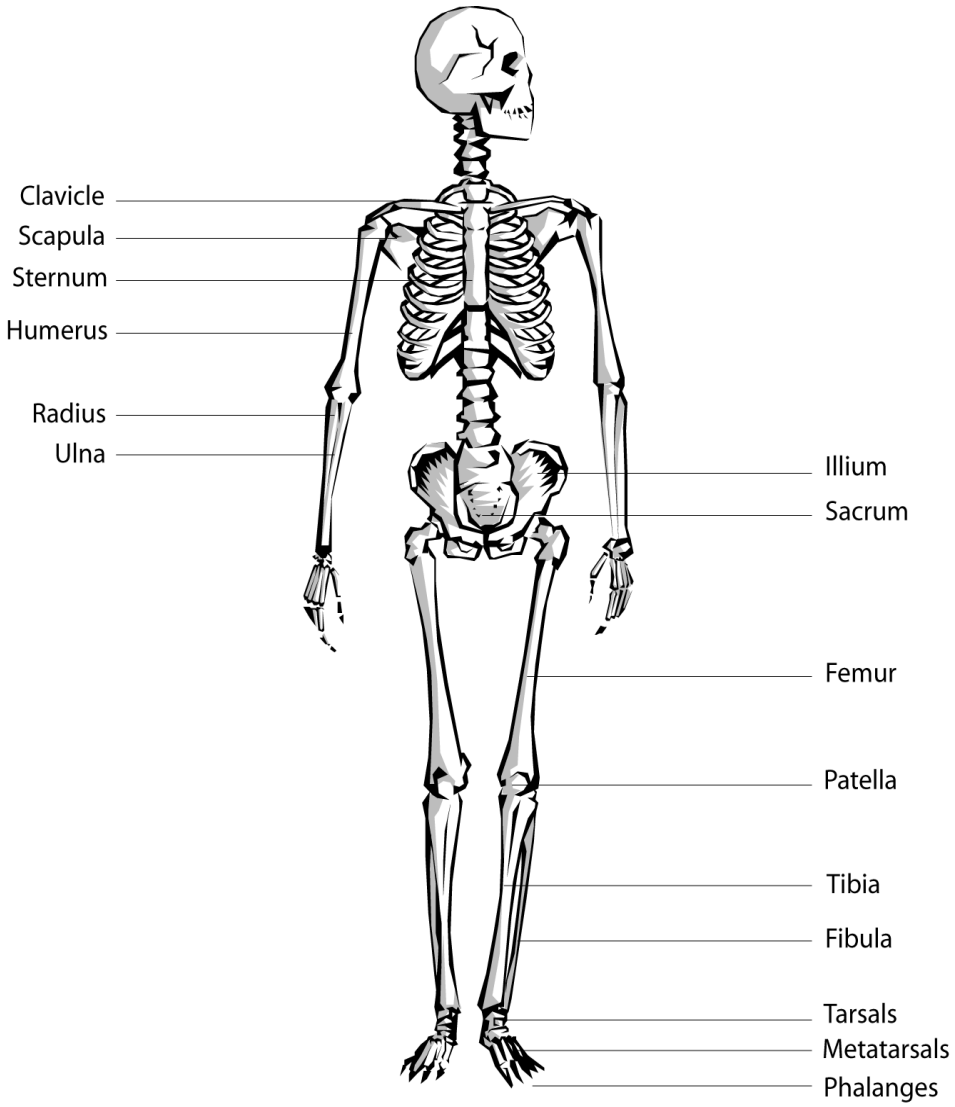
Carpals: the eight bones of the wrist joint.

Clavicle (collarbone): a bone curved like the letter F that moves with the breastbone (sternum) and the shoulder blade (scapula).

Femur: the thigh bone, which runs from the hip to the knee and is the longest and strongest bone in the skeleton.

Fibula: the outer and smaller bone of the leg from the ankle to the knee; it is one of the longest and thinnest bones of the body.

Humerus: the upper bone of the arm from the shoulder joint to the elbow.



Ileum is one of the pelvis's bones; it is the upper and widest part and supports the flank (outer side of the thigh, hip and buttock).

Ischium: the lower and back part of the hip bone.

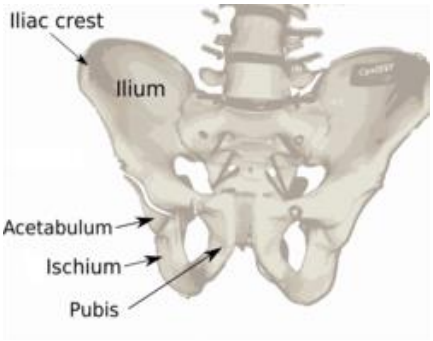
Pelvis

Metacarpals: the bones in the hand that make up the area known as the palm.

Metatarsals: the bones in the foot that make up the area known as the arch.

Patella: the lens-shaped bone in front of the knee.

Pelvis: three bones (ilium, ischium and pubis) that form the girdle of the body and support the vertebral column (spine); the pelvis is connected by ligaments and includes the hip socket (the acetabulum).



Phalanges: any one of the bones of the fingers or toes.

Pubis: the bone at the front of the pelvis.

Radius: the outer and shorter bone in the forearm; it extends from the elbow to the wrist.

Sacrum: five joined vertebrae at the base of the vertebral column (spine).

Scapula (shoulder blade): the large, flat, triangular bone that forms the back part of the shoulder.

Sternum (breastbone): the narrow, flat bone in the middle line of the chest.

Tarsals: the seven bones of the ankle, heel and mid-foot.

Tibia: the inner and larger bone of the leg between the knee and ankle.

Ulna: the inner and larger bone of the forearm, between the wrist and the elbow, on the side opposite the thumb.

Bones, Skull and Face

Frontal bone: forehead bone.

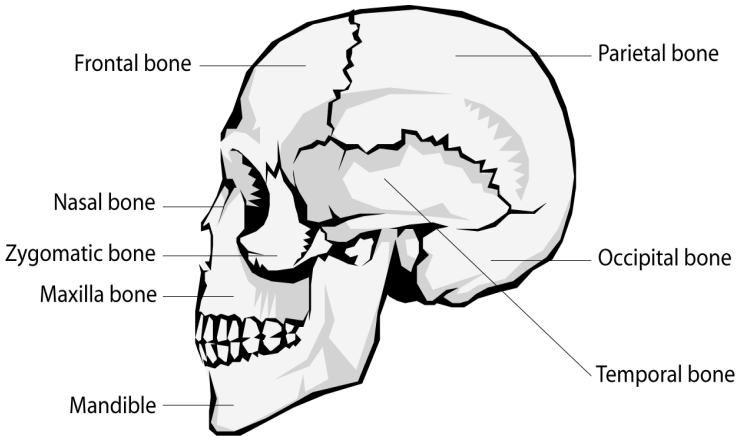
Mandible: the horseshoe-shaped bone forming the lower jaw.

Maxilla: the jawbone; it is the base of most of the upper face, roof of the mouth, sides of the nasal cavity and floor of the eye socket.

Nasal bone: either of the two small bones that form the arch of the nose.

Parietal bone: one of two bones that together form the roof and sides of the skull.

Temporal bone: a bone on both sides of the skull at its base.

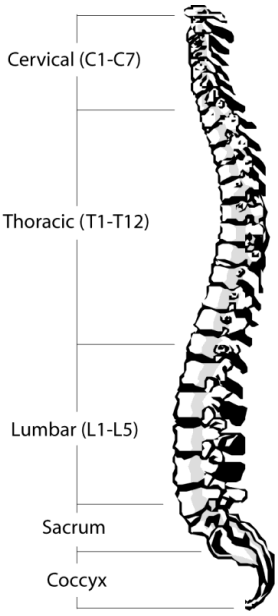


Zygomatic bone: the bone on either side of the face below the eye.

Bones, Spine

Atlas: the first cervical vertebra.

Axis: the second cervical vertebra.



Cervical vertebrae (C1–C7): the first seven bones of the spinal column; injury to the spinal cord at the C1–C7 level may result in paralysis from the neck down (quadriplegia or tetraplegia).

Coccyx: a small bone at the base of the spinal column, also known as the tailbone.

Intervertebral disk: the shock-absorbing spacers between the bones of the spine (vertebrae).

Lumbar vertebrae (L1–L5): the five vertebrae in the lower back; injury to the spinal cord at the lumbar level may affect bowel and bladder function and may or may not involve paralysis below the waist (paraplegia).

Sacral vertebrae: the vertebrae that form the sacrum.

Sacrum: five joined vertebrae at the base of the vertebral column (spine).

Sciatic nerve: the largest nerve in the body, passing through the pelvis and down the back of the thigh.

Spinous process: the small bone that protrudes at the back of each vertebra.

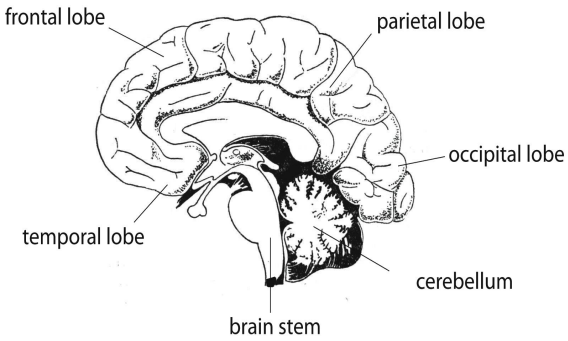
Thoracic vertebrae (T1–T12): the 12 vertebrae in the middle of the back that are connected to the ribs; injury to the spinal cord at the thoracic level may result in paralysis from the waist down (paraplegia) and may affect other organs such as the liver, stomach and kidneys and functions such as breathing.

Transverse process: the two small bones that protrude from either side of each vertebra.

Brain

Brain stem: the part of the brain that connects to the spinal cord; controls blood pressure, breathing and heartbeat.

Cerebellum: the second-largest part of the brain; it controls balance, coordination and walking.



Cerebrum: the largest part of the brain, with two halves known as hemispheres; the right half controls the body's left side and the left half controls the body's right side. Each hemisphere is divided into four lobes:

- **Frontal lobe:** the area behind the forehead that helps control body movement, speech, behavior, memory, and thinking.
- **Occipital lobe:** area at the back of the brain that controls eyesight.
- **Parietal lobe:** This is the top and center part of the brain, located above the ear. It helps us understand things like pain, touch, pressure, body-part awareness, hearing, reasoning, memory, and orientation in space.
- **Temporal lobe:** part of the brain near the temples that controls emotion, memory and the ability to speak and understand language.

Digestive System and Abdomen

Colon: the final section of the large intestine; it mixes the intestinal contents and absorbs any remaining nutrients before the body expels them.

Duodenum: the first part of the small intestine; it receives secretions from the liver and pancreas through the common bile duct.

Esophagus: the muscular tube, just over nine inches long, carries swallowed foods and liquids from the mouth to the stomach.

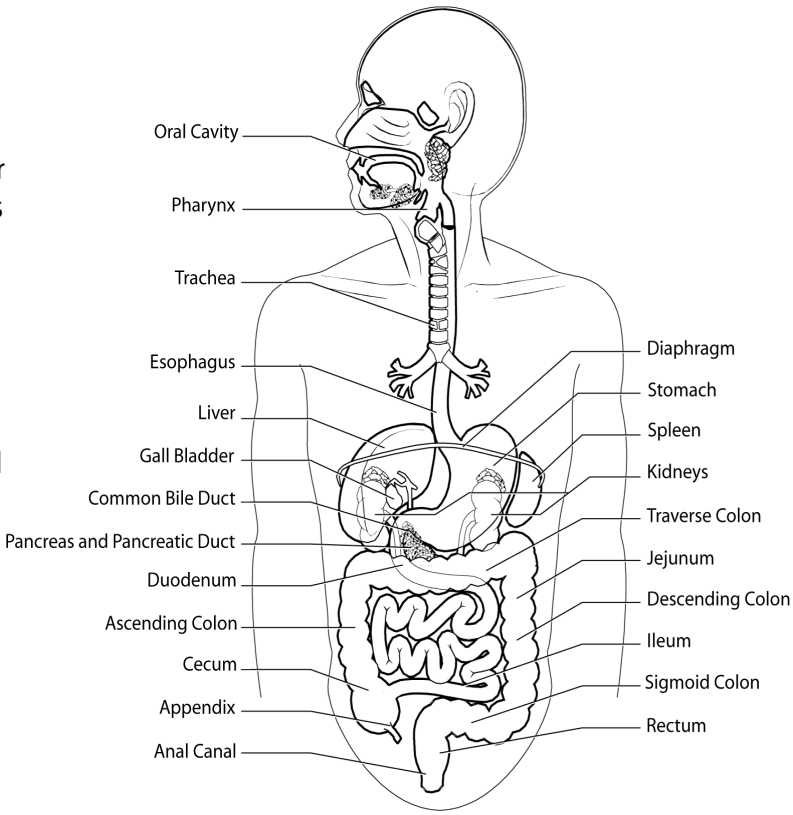
Gallbladder: a pear-shaped sac on the underside of the liver that stores bile received from the liver.

Ileum: the lower three-fifths of the small intestine.

Jejunum: the second part of the small intestine extending from the duodenum to the ileum.

Kidney: one of a pair of organs at the back of the abdominal cavity that filter waste products and excess water from the blood to produce urine.

Large intestine: absorbs nutrients and moves stool out of the body.



Liver: the organ that filters and stores blood, secretes bile to aid digestion, and regulates glucose; due to its large size and location in the upper right portion of the abdomen, the liver is the organ most often injured.

Pancreas: a gland that produces insulin for energy and secretes digestive enzymes.

Pharynx (throat): the passageway or tube for air from the nose to the windpipe and for food from the mouth to the esophagus.

Rectum: the lower part of the large intestine between the sigmoid colon and the anus.

Sigmoid colon: the S-shaped part of the colon between the descending colon and the rectum.

Small intestine: the part of the digestive tract that breaks down and moves food into the large intestine and absorbs nutrients.

Spleen: an organ in the upper left part of the abdomen that filters waste, stores blood cells, and destroys old blood cells; it is not vital to survival, but without it, there is a higher risk of infections.

Stomach: the large organ that digests food and then sends it to the small intestine.

Respiratory System

Diaphragm: dome-shaped skeletal muscle between the chest cavity and the abdomen that contracts when we breathe in and relaxes when we breathe out.

Epiglottis: a flap of cartilage behind the tongue that covers the windpipe during swallowing to keep food or liquids from getting into the airway.

Larynx (voice box): part of the airway and place in the throat where the vocal cords are located.

Lung: one of two organs in the chest that delivers oxygen to the body and removes carbon dioxide from it.

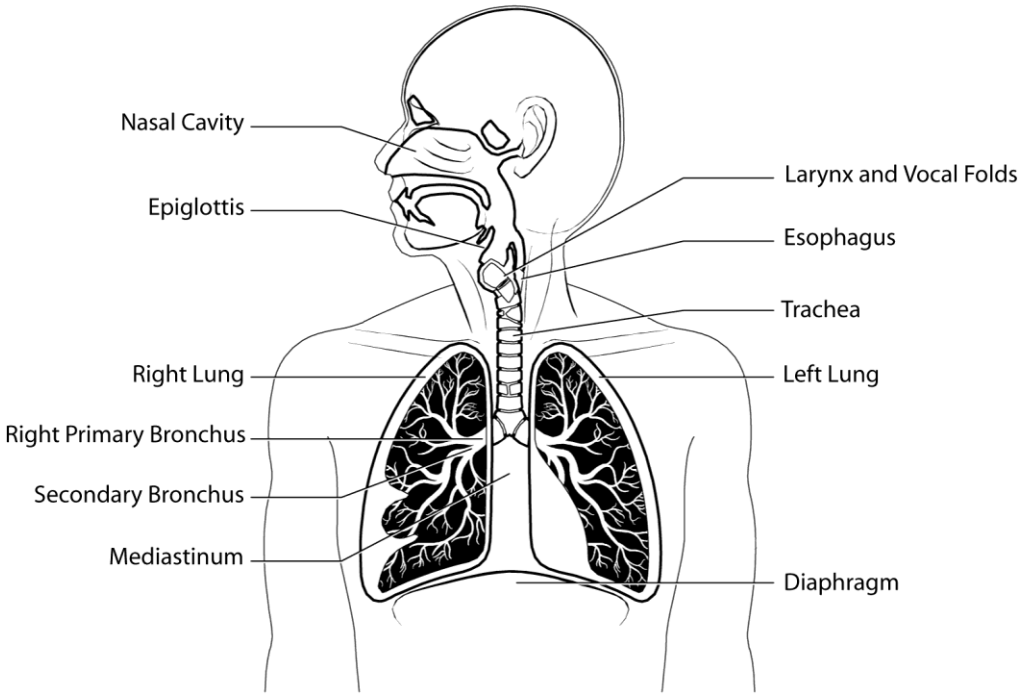
Mediastinum: the part of the body between the lungs that contains the heart, windpipe, esophagus, and the large air passages that lead to the lungs (bronchi) and lymph nodes.

Nasal cavity: a large air-filled space above and behind the nose in the middle of the face where inhaled air is warmed and moistened.

Pharynx (throat): the passageway or tube for air from the nose to the windpipe and for food from the mouth to the esophagus.

Trachea (windpipe): the main airway that supplies air to both lungs.

Vocal cord: either of two thin folds of tissue within the larynx that vibrate air passing between them to produce speech sounds.



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15. PERSONAL HEALTH INFORMATION NOTEBOOK

Use the following pages to list:

- Names of the doctors, nurses and others who are caring for your loved one
- Injuries and procedures
- Questions you may have
- Things you need to do and get

There is also space at the end of this booklet to write down anything else you may want to note.

NAMES OF PROVIDERS

Many doctors, nurses, and others will care for your loved one. They are all part of the trauma team led by the trauma surgeon. Our board-certified trauma surgeons, who are called the attending trauma surgeons, provide 24-hour coverage of the trauma center.

Staff involved in yours or your loved one's care:

Name: _____
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While in the hospital, your loved one may move to different units. You should write down the unit's phone numbers to get ahold of your loved one.

Hospital Unit and Contact Numbers:

Unit: _____ Unit Phone Number: _____

Unit: _____ Unit Phone Number: _____

Unit: _____ Unit Phone Number: _____

Unit: _____ Unit Phone Number: _____

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16. INJURIES AND PROCEDURES

List major injuries, procedures, surgeries and dates:

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17. QUESTIONS TO ASK DOCTORS AND NURSES

Write down questions you do not want to forget to ask.

18. JOURNALING: DAILY GOALS AND ACCOMPLISHMENTS

Write down your goals and accomplishments. This will help you track your progress. No goal is too small.

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This booklet is provided as a public service by the American Trauma Society and Pomona Valley Hospital Medical Center. The booklet is based on a Trauma Handbook developed by the Inova Regional Trauma Center at the Inova Fairfax Hospital and Inova Fairfax Hospital for Children in Falls Church, Virginia.