

# Handbook for Patients and their Families

Indiana University Health Methodist Hospital  
Acute Care Surgery



trauma survivors  
**network**  
provided by **ATS**



100+years

**AMERICAN COLLEGE OF SURGEONS**

*Inspiring Quality: Highest Standards, Better Outcomes*



Indiana University Health

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intentionally left  
blank because it will  
be a folder for print  
materials**

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| <b>PARKING</b>  |                              |
|---|------------------------------|
| <b>Garages #1 and #4</b>  | <b>Garage #2</b>             |
| Up to 30 minutes – No charge  | Up to 30 minutes – No charge |
| Up to 2 hours - \$2.00  | 31 minutes-1 hour - \$3.00   |
| 2-3 hours - \$3.00  | 1-2 hours - \$5.00           |
| 3-4 hours - \$4.00  | 2-24 hours - \$6.00          |
| 4-24 hours - \$5.00   | No 24-hour passes            |
| 24-hour patient family pass - \$5.00  | No 30-day passes             |
| 30-day patient family pass - \$30.00  |                              |
| <b>PARKING DISCOUNTS</b>  |                              |
| <p><b>30-Day Pass:</b> Family members and visitors who have a loved one staying at IU Health Methodist Hospital for a longer period of time may purchase a 30-Day Pass at either Garage #1 or Garage #4 from any parking attendants. The 30-Day Pass is \$30.00 and allows the purchaser to enter and exit the garages as many times per day as they need to for 30 days.</p> |                              |

| <b>PLACES TO EAT</b>   |
|--|
| <b>Au Bon Pain</b>   |
| Features a selection of soups, salads, sandwiches and pastries             |
| First floor, on Professional Avenue  |
| Daily, 6 am – 10 pm  |
| <b>Beacon Cafeteria</b>  |
| Full selection of meals, featuring healthy options                         |
| First floor, near the main lobby   |
| Daily, 6 am – 3 pm; 10 pm – 2:30 am  |
| <b>Copper Moon Coffee</b>  |
| First floor, Located at the intersection of Main Street and Central Avenue |
| Monday-Friday, 6 am – 8 pm   |
| Saturday-Sunday, 7 am – 5 pm   |
| <b>Sonny's Pizza and Deli</b>  |
| Pizza, wraps, salads, and sandwiches                                       |
| Ground floor, B Building   |
| Monday-Friday, 10:30 am – 7 pm   |
| <b>Room Service – Classic Cuisine</b>                                      |
| Healthy, delishish choices delivered to your room                          |
| Daily, 6:30 am – 8 pm  |
| 317.963.2222   |

## 1. WELCOME

### 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 that 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 that you have for the doctors and staff. **Every** member of the hospital staff is here to help you.

### Level I Trauma Center

The question of where to go in a life or death emergency does not come up often for most people, if ever. However, when serious injuries do arise, Indiana University Health is ready to help. We are home to Indiana’s most established [Level I Adult Trauma Center at Indiana University Health Methodist Hospital](#) and the state’s only [Level I Pediatric Trauma Center at Riley Hospital for Children at Indiana University Health](#), both in Indianapolis. In addition, [Indiana University Health Arnett Hospital](#) in Lafayette and [Indiana University Health Ball Memorial Hospital](#) in Muncie are Level III trauma centers. [Indiana University Health Bloomington Hospital](#) is in the process of obtaining Level III Trauma Center verification. This means we have the people and technology to provide comprehensive care for any type of injury at any time.

A trauma center is not the same thing as an [emergency department](#). At IU Health, our Trauma Centers provide advanced, comprehensive care for traumatic injuries that gives patients access to more resources and technology than they can receive in an emergency department. Trauma centers must have operating rooms, imaging technology, trauma surgeons and other specialty physicians available quickly at all times. Trauma centers must be dedicated to [preventing injury](#), providing high-quality care and improving staff education about the treatment and assessment of traumatic injuries.

Trauma refers to damage that the body sustains from an external force. Among the many potential sources of trauma are automobile accidents, falls, and knife and gunshot wounds. Examples of trauma include:

- Multiple fractures
- Acute spine injuries
- Punctured lungs
- Stab wounds
- Brain injuries

By delivering highly specialized care right away, the trauma centers of IU Health save lives and optimize patients’ recovery. Trauma centers are verified from levels one through four by the American College of Surgeons, with Level I Trauma Centers providing the most complete set of services—total care from prevention through rehabilitation.

Research has found a 25 percent reduction in deaths for severely injured patients cared for at a Level I Trauma Center compared with those receiving treatment outside a trauma center. Outcomes are best when treatment begins within the “golden hour”—the 60 minutes following a traumatic injury.

Fewer than 10 percent of U.S. hospitals have a trauma center. Fortunately, only a few patients have injuries severe enough to require these specialized services. Most injuries can be treated in a typical emergency department or, in the case of milder strains and pains, in your primary healthcare provider’s office or an urgent care center.

When you have traumatic injuries, the right care at the right time can be lifesaving. At Indiana University Health, we have assembled the people and resources to provide top-quality care for the most seriously injured patients—no matter when they come to us.

Our specialized trauma services ensure the best possible outcomes for the most critical cases. Through our affiliation with the Indiana University School of Medicine, our [surgeons](#) and [emergency medicine physicians](#) train the next generation of physicians and carry out innovative research in trauma care.

### ***How We Can Help***

#### **Level One Trauma Center Treatment Information**

Our commitment to make a full range of expertise and technology available at all times sets our trauma care apart. Our resources and services include:

- **Specialists.** Our multidisciplinary trauma team, including trauma surgeons, trauma nurses, neurosurgeons, orthopedic surgeons, cardiothoracic specialists, surgeons and spine specialists, is available 24 hours a day. This multidisciplinary team has several decades of experience managing patients with the most severe and complex injuries.
- **Advanced technology.** We are committed to maintaining the most innovative technologies. For example, our “hybrid suite” is an operating room equipped with advanced imaging modalities. This suite allows us to combine traditional “open” surgery with minimally invasive approaches to control bleeding in the most severely injured and high-risk patients. Other 24-hour key services include anesthesia, magnetic resonance imaging (MRI), laboratory, blood bank and conventional catheter angiography and sonography.
- **Indiana University Health LifeLine.** This 24-hour critical care transport service provides emergency helicopter and ground critical care transport, bringing patients rapidly from remote areas or community hospitals to our Level I Trauma Centers.
- **Rehabilitation.** We ensure that you have access to occupational therapy, speech therapy, physical therapy and social services during your acute phase of care. From the time of injury to rehabilitation, we are committed to providing the highest level of care.

## 2. VISITORS ARE IMPORTANT

Visiting is a time to be with your loved one, ask questions, and meet with staff. Research shows that comforting visits from friends and family help most patients to heal. Family and close friends know the patient better than anyone else and can make a difference in treatment. Visiting is often a good time to begin learning how to take care of your loved one at home.

You may have to wait before you can visit your loved one. Visits can be limited or suspended under extenuating circumstances such as a pandemic or during flu season.

### **WE ARE HERE TO HELP**

Feel free to ask for help finding a patient room, department, etc. **All our employees, doctors and volunteers wear ID badges.**

#### **»Family Waiting Rooms**

There are one or two waiting areas near each of our Step-Down Units and Intensive Care Units (ICUs). For private family meetings with doctors, we have “Quiet Rooms.” Restrooms are conveniently located. Visiting hours in our ICUs are from 8:00am until 9:00pm. One family member is permitted to remain in the hospital overnight. This individual must get a special tag from the Unit Secretary each night. Please note that space is limited. Be sensitive to the fact that there are many patients and waiting room space is limited.

#### **»Additional Gathering Areas**

There is additional seating available in our Main Lobby and in the Palm Tree Courtyard.

### 3. FAMILY AND FRIENDS

The primary job of the trauma team is to treat patients. We need your help in taking care of your loved one and making sure he or she gets the best care possible. Here are 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 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 medicines that your doctor has prescribed for you. 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 you are needed.

#### » Ask for Help

Do not hesitate to ask for help. Make a list of what you need so that you are prepared to accept help when friends offer. Friends often appreciate being able to help and be involved in the patient's care.

#### » Ask Questions and Stay Informed

The trauma team knows how important regular updates are to family and friends. The family is an important part of the health care team.

**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. Ask until you understand. 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. To help maintain a healthy environment for patients and their families, the hospital counts on you. 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 you go into a patient's room and when you come out.
- Do not visit if you are not feeling well or have an illness that could be transferred to our patients.
- Talk with the patient's nurse before bringing any children under the age of 16 into a patient's room.
- For the safety of young children, provide adult supervision in all areas of the hospital.
- Respect the property of other people and of the hospital.
- Do not ask other patients and families about private details of their care.
- Respect the rights of all patients and hospital staff.



**WHILE  
YOU ARE  
HERE**

## 4. WHERE PATIENTS STAY WHILE IN THE HOSPITAL

After patients are evaluated by doctors they are moved to another unit in the hospital. Where they are moved depends on their injury.

Patients may first go to the intensive care unit. When they are ready, they may then move to a step-down unit. They may also go to another unit in the hospital. Patients are only moved from one unit to another when the medical 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 he or she has gone, please call the hospital operator at (317) 962-5500.

These are the hospital units that care for patients:

### » Intensive Care Unit (ICU)

Patients in the ICU receive care from a team of doctors and nurses. They are trained to take care of seriously injured patients. The first step is to make sure the patient is medically stable. Medically stable means that 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 as normal a life as possible, as quickly and as safely as possible.

### » Step-Down Unit

As patients in the ICU improve, they are often moved to a step-down unit. Patients may also go straight from the admitting area to this type of unit. This happens if they do not need the care provided in the ICU.

### » Medical and Surgical Care Units

Less injured patients may be moved to another unit in the hospital. Also, those who no longer require the care found in ICU may be moved to these units.

### A TYPICAL DAY IN THE ICU

Most patients are attached to equipment that gives doctors and nurses important information. This allows them to make the best decisions. The 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 medical team “rounds” to each patient’s bedside to do exams, check progress and plan the patient’s care. This time is valuable for everyone involved in the care of your loved one. Family members are encouraged to be involved in the patient’s plan of care.

Physical therapists, occupational therapists and nursing staff work together to help patients begin to move normally and regain strength. For instance, 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. You can expect a busy place. Sometimes, the staff asks all visitors to leave the unit to preserve a patient’s privacy.

## 5. FREQUENTLY ASKED QUESTIONS

**This information will  
be gathered at the  
May Teams action  
meeting**

## 6. WHO TAKES CARE OF THE PATIENT

### » Anesthesia and Pain Management Specialists

These specialists are specially trained to work with patients who are in pain. They create a plan to ease pain and improve quality of life. Treatments may include medications, implanting pumps or nerve stimulators, physical therapy or behavioral programs.

### » Case Manager

All admitted patients have a case manager. Case managers have experience to help you through your stay in the hospital. 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 care for yourself, refer you to a home health agency if you need it, help you get continued care with a specialist, and coordinate your transfer to a rehabilitation facility.

### » Chaplain

Chaplains have special skills to help people during times of illness. They meet the spiritual and emotional needs of patients and families from many different religions and spiritual practices. Chaplains visit all who want spiritual and emotional support. This department provides pastoral care visits, pastoral counseling, worship, memorial services, support groups, and spiritual practices.

### » Clinical Nurse Specialist

Clinical nurse specialists are registered nurses who have a master's degree. They also have expertise in trauma care. They monitor the patient's plan of care. They also act as a link between the patient and the patient's various caregivers.

### » Clinical Technician

Clinical technicians help nurses with a patient's care. They have advanced technical skills and may start an IV, draw blood, or insert or remove catheters. They also may help get the patient out of bed or help with feeding. Clinical technicians work under the direction of a nurse or a doctor.

### » Dietitian

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

### » Forensic Nurse Examiner

Forensic Nurse Examiners are nurses who are trained in caring for victims of violence.

### » Geriatrician

Geriatricians are doctors that treat older adults.

### » Neurosurgeon

Neurosurgeons are doctors who are trained in surgery for the brain or spinal cord.

### » Nurse

Nurses manage care and recovery of patients. They talk with the trauma team about the patients' care.

### » Nurse Practitioner/Physician Assistant

Nurse practitioners and Physician Assistants are providers who have advanced training and manage patients along with the doctor. Trauma nurse practitioners and Physician Assistants do physical exams, order and interpret tests, prescribe medications and other treatments, and 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 cast broken bones, change wound dressings, set up and maintain treatment equipment such as traction, place splints on injured arms and legs.

### » Pharmacist

Pharmacists are medicine experts. They work closely with nurses and doctors. They provide information and help with choosing medicines.

### » Physiatrist or Rehabilitation Medicine Physician

Physiatrists are doctors who use a number of 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 and other problems with moving and wound healing.

### » Procedure Nurse

Procedure nurses have special training to help surgeons perform such procedures as opening patients' airways, examining their lungs and changing surgical dressings.

### » Psychologist

Psychologists are licensed mental health professional. A psychologist is not a medical doctor but has advanced training at the masters or doctoral level (a Ph.D. or Psy.D.)

### » Psychiatrist

Psychiatrists are medical doctors (MDs) who treat of mental and emotional disorders. Psychiatrists can prescribe medication.

### » Resident

Residents are licensed physicians who are getting more training in a specialty. They provide patient care and keep the attending doctor informed of each patient's progress.

### » Respiratory Therapist

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 both within the hospital and in the community. The social worker also may help ease the change from hospital to home.

### » 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 have years of training in trauma surgery. A trauma surgeon is in the hospital 24 hours a day. They will oversee the total care of you or your family member in the hospital. They regularly visit patients to check on their progress and coordinate with other members of the trauma team.

### » Pediatrician

Pediatricians are doctors who have specialized training in treating children and adolescents.

### » 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.

### » Unit Secretaries

Unit Secretaries are available to assist with the patient and family direction and assist with scheduling follow-up appointments. They are also available to answer questions regarding general hospital navigation and policies.

### » Student Nurses

As an affiliated academic institution, Student Nurses are present on the medical floors during the patient's care. They assist with direct patient care under the direction and supervision of the Registered Nurse.

### » Trauma Survivors Network Coordinator

The Trauma Survivors Network (TSN) Coordinator helps coordinate support through your recovery. The TSN Coordinator is specially trained to provide helpful resources and support during recovery from major injury.

### » Trauma Survivors Network 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 Trauma Survivors Network Coordinator.

## 7. PERSONAL HEALTH INFORMATION

### NAMES OF PROVIDERS

Many doctors, nurses and other care providers will be taking care of your loved one. They are all part of the trauma team, led by the trauma surgeon.

Our board-certified trauma surgeons provide 24-hour coverage of the trauma center. They are called the attending trauma surgeons. We also train future surgeons. They are known as surgical residents.

Who are the attending trauma surgeons and residents?

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Who are the physician consultants? These are doctors who help with the diagnosis and treatment of specific types of injuries.

Orthopedic Surgery \_\_\_\_\_

Neurosurgery \_\_\_\_\_

Spine Surgery \_\_\_\_\_

Plastic Surgery \_\_\_\_\_

Rehabilitation \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_

Who are the nurses who are taking care of your loved one? \_\_\_\_\_

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Who is the Trauma Survivor Network (TSN) coordinator? \_\_\_\_\_

Who else in the hospital is helping in the care of your loved one?

Physical Therapist \_\_\_\_\_

Occupational Therapist \_\_\_\_\_

Speech Pathologist \_\_\_\_\_

Psychologist \_\_\_\_\_

Psychiatrist \_\_\_\_\_

Social Worker \_\_\_\_\_

Chaplain \_\_\_\_\_

Financial Counselor \_\_\_\_\_

Other \_\_\_\_\_

Other \_\_\_\_\_



## 9. IF A PATIENT CANNOT MAKE DECISIONS

Ideally, patients would always be able to make their own health care choices. When they are not able to do so, the medical team will consult the patient's Advanced Directive or Power of Attorney for Health Care. This is a person chosen by the patient who can make decisions that are in keeping with the patient's wishes. This type of power of attorney only applies to health care.

When a Power of Attorney for Health Care or a court-appointed guardian is not available, the medical team will consult a backup decision maker. This is an adult who has shown care and concern for the patient, knows the patient's values and is available. When a patient cannot make his or her own choices due to injury or illness, the medical team will choose one person to make all decisions for the patient.

**If you have questions about making decisions for the patient, please ask your nurse or chaplain for more information.**

### **Advanced Directives**

“Advance directive” is a term that refers to your spoken and written instructions about your future medical care and treatment. By stating your health care choices in an advance directive, you help your family and physician understand your wishes about your medical care.

Advance directives are normally one or more documents that list your health care instructions. An advance directive may name a person of your choice to make health care choices for you when you cannot make the choices for yourself. If you want, you may use an advance directive to prevent certain people from making health care decisions on your behalf.

Your advance directives will not take away your right to decide your current health care. As long as you are able to decide and express your own decisions, your advance directives will not be used. This is true even under the most serious medical conditions.

### **What happens if you do not have an Advanced Directive?**

If you do not have an advance directive and are unable to choose medical care or treatment, Indiana law decides who can do this for you. If you cannot communicate and do not have an advance directive, your physician will try to contact a representative using the priority list. Your health care choices will be made by the representative that your physician is able to contact. The order of priority is:

1. A legally appointed guardian of the person or a representative appointed by a probate court.
2. A spouse (unless you are legally separated).
3. An adult child
4. A parent
5. An adult sibling
6. A grandparent
7. An adult grandchild
8. An adult friend (special conditions apply)
9. The nearest other adult relative in the next degree of kinship not listed in 2 through 7

## 10. FOR YOUR COMFORT

### Hospital Resources

Click the link or use the QR code to visit Methodist Hospital's website and view hospital resources:  
<https://iuhealth.org/find-locations/iu-health-methodist-hospital>



#### »SPIRITUAL CARE AND CHAPLAINCY SERVICES

Pastoral Care is available at any time, day, or night. Chaplains can be contacted by phone Monday – Friday, from 7:00am to 4:30 pm at (317) 962-8611. To request the on-call Chaplain, call (317) 312-8611 and leave a callback number or call the hospital operator and request that the on-call chaplain be paged to your location. You can also make a request through the medical team. THE MARY HANSEN CAREY CHAPEL IS ALSO AVAILABLE 24 HOURS A DAY FOR YOUR NEEDS. THE CHAPEL IS LOCATED OFF THE MAIN LOBBY ACROSS FROM THE BEACON CAFETERIA. (CHAPEL MAY BE CLOSED TO VISITORS DURING EXTENUATING CIRCUMSTANCES)

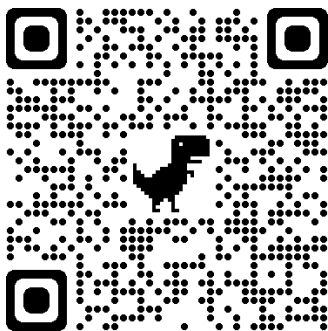
Religious services of prayer and worship are offered:

- Non-denominational services: Sunday at 1:30 p.m.
- Mid-week prayer service: Wednesday at 1:30 p.m.
- Roman Catholic mass: Sunday – Friday at 11 a.m.

If you are unable to attend, the services are broadcast live on hospital TV station 3.

#### »PHARMACY

Methodist Hospital also has a Pharmacy. Please visit the following link or scan this QR code to learn more:  
<https://iuhealth.org/find-locations/methodist-retail-pharmacy>



# MEDICAL HELP



## 11. 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 as a result 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.

In this section of the handbook, we describe some of the 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 that 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, which makes it hard to diagnose the injury, but symptoms often show up later. Such symptoms may include foggy memory, a 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 find out 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 medicine).
- Checking to see if patients react 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.

When the patient is more stable, doctors may evaluate the patient's level of functioning using the Rancho Los Amigos Scale, often called the Ranchos Scale. The Ranchos Scale has eight levels that describe how well patients can think and how they act. It ranges from level 1 (lowest level of functioning) to Level 8 (highest level of functioning). It also gives better information about the severity of the brain injury.

## **Treatment**

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

- Medicines to lower brain pressure, medicines to lower anxiety and medicines that change the fluid levels in the brain
- Intracranial pressure monitor (ICP), which measures pressure in the brain. There are two types of monitors: a tube placed in the brain that only measures brain pressure, and a tube placed into a small space in the brain that measures brain pressure and also drains fluid from the brain to lower the pressure on the brain.
- Craniotomy, which is an opening in the skull to remove a clot and lower brain pressure. This is done in the operating room.
- Shunt, which is a tube placed to drain excess fluid in the brain. This is done in the operating room.
- Craniectomy, which 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 scan to find out more about the injury. They can tell how the lung is using 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 medicines to treat pain and soreness.

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

## **ABDOMINAL INJURIES**

Blunt or penetrating trauma to the abdomen can injure such organs as the liver, spleen, kidney or stomach. The injuries may be:

- Lacerations (cuts)
- Contusions (bruises)
- Ruptures (severe tearing of the tissue)

### **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 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. Often, however, severe injuries to the abdomen require a number of surgeries.

## **SPINAL CORD INJURY**

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

- Quadriplegia (also called tetraplegia): 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 level of the fourth cervical vertebra (C4) affects breathing and patients often need a ventilator (a breathing machine).
- Paraplegia: injury to the spinal cord from the 2<sup>nd</sup> thoracic vertebra (T2) to the 12<sup>th</sup> 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 that the patient has some movement or feeling. Incomplete injuries may be to the back, front or central part of the spinal cord. With injury to the back part of the spinal cord, the patient may have movement but be unable to feel that movement. With injury to the front part of the cord, the patient may lose movement but may be able to feel touch and temperature. An incomplete injury may get better in time. It is hard to know when or if 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, because of 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**

In the first 12 hours after a blunt spinal cord injury, doctors often give steroids to the patient to reduce spinal cord swelling and improve recovery from the injury. If the spinal cord was cut in two, no treatment can reduce paralysis.

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 and 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 decubitis) 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.

## **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 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 and 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 medicines 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.

## 12. COMMON EMERGENT SURGERIES

### APPENDICITIS

Appendicitis



Appendectomy, Laparoscopic Surgery



Appendectomy, Open Surgery



### CHOLELITHIASIS

Cholelithiasis



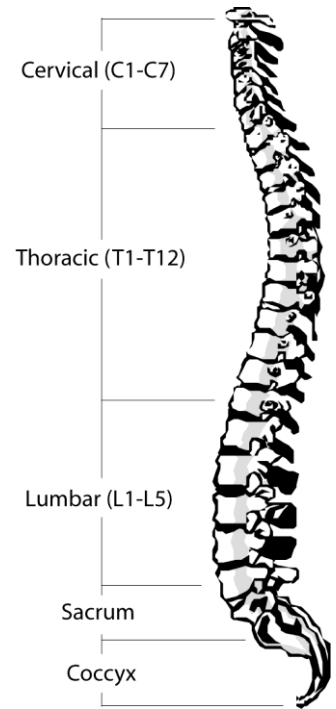
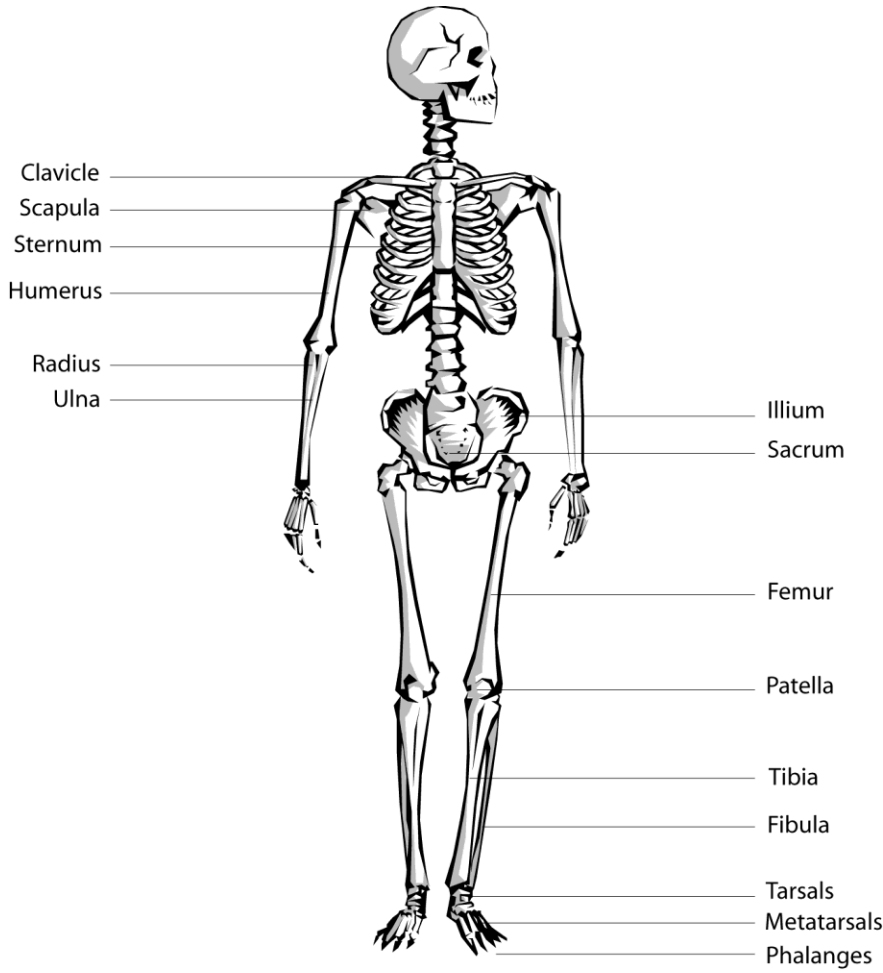
Cholecystectomy, Laparoscopic Surgery



Cholecystectomy, Open Surgery



## HUMAN BODY IMAGES



Simple



Greenstick



Comminuted



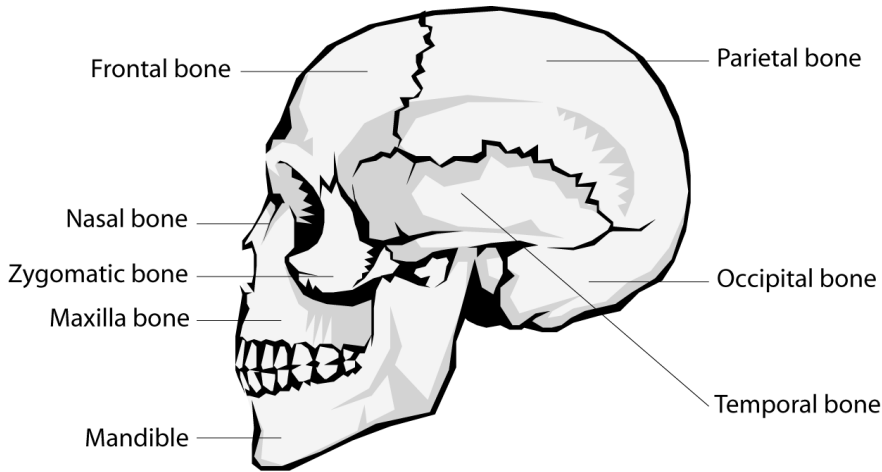
Hairline

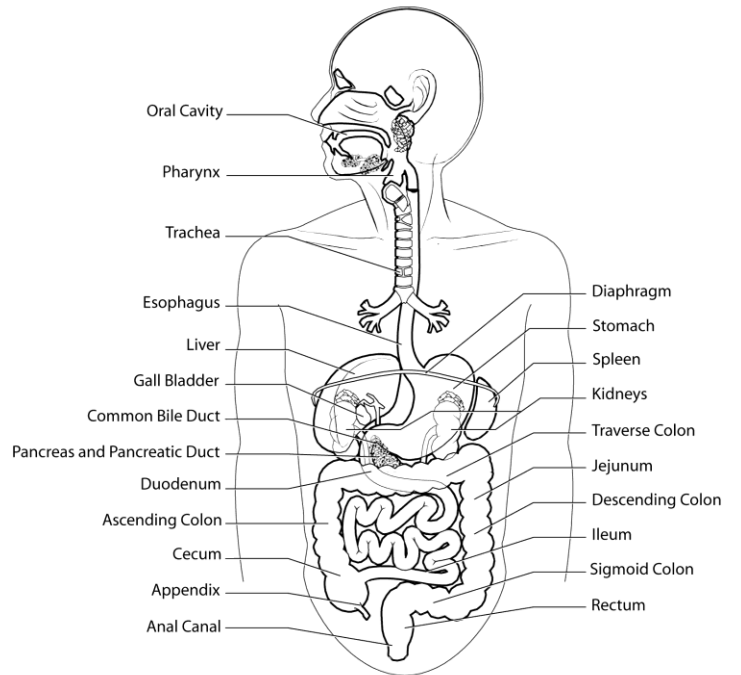
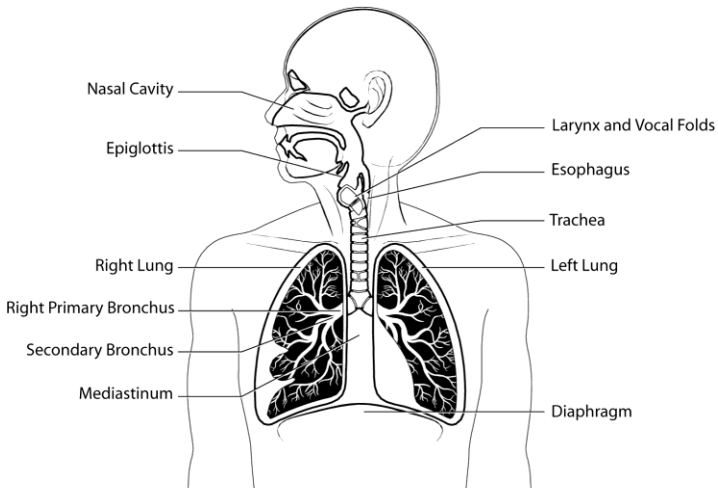
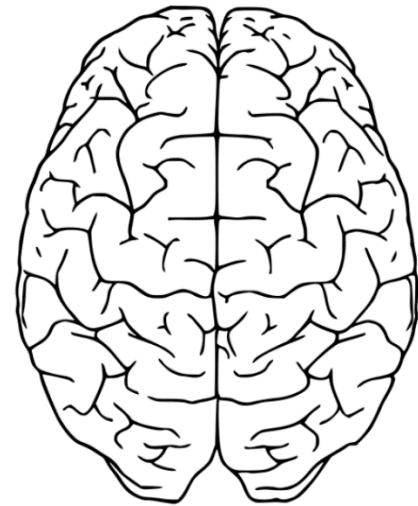
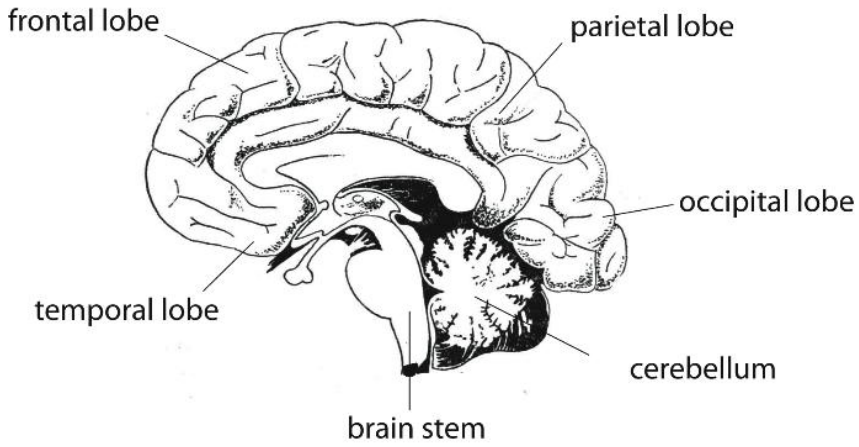


Compound



Spiral





## Injuries and Procedures

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## Notes

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## 13. GRIEF AND LOSS

Just as our bodies can be traumatized, so can our minds. Trauma and illness can affect your emotions and will to live. The effect may be so great 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/illness. In the hospital, they may focus on their physical recovery rather than on their emotions. As they face their recovery, they may have a range of feelings, from relief to intense anxiety.

Family members also may go through a range of emotions between first hearing the news of the injury/illness and on through the patient's recovery.

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 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.

### COPING WITH LOSS

The stress that goes with trauma, illness, and grief can affect your health. It can also affect your decision making during the first several months after injury and illness. 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. It may take some time to find friends or family who can be good listeners.

### WHEN A LOVED ONE 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 the 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 help if:

- The grief is constant after about six months
- If there are symptoms of PTSD or major depression
- If your reaction interferes with daily life

Your doctor can help you identify local services available for support, including the Trauma Survivors Network.

## 14. IS IT STRESS OR POST-TRAUMATIC STRESS DISORDER?

Going through a traumatic injury or illness can cause a range of strong emotions. For example, it is common for people to feel or experience the following right after the injury/illness:

- Sadness
- Anxiousness
- Crying spells
- Sleep problems
- Anger
- Irritability
- Grief or self-doubt

These emotions are perfectly normal.

For some people, distress resolves over time. For others, it may hold steady or even increase. In about one out of four people, the distress is so severe that it is called post-traumatic stress disorder, or PTSD.

### WHAT IS PTSD?

PTSD is a type of anxiety that occurs in response to a traumatic event. It was first described in combat veterans. Now we know that PTSD occurs in everyday life. PTSD has defined symptoms that are present for at least four weeks.

After a trauma or hospitalization, 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 symptoms:

| Type                   | Symptoms   |
|------------------------|--|
| <b>Hypervigilance</b>  | Having a hard time falling asleep or staying asleep<br>Feeling irritable or having outbursts of anger<br>Having a hard time concentrating<br>Having an exaggerated startle response  |
| <b>Re-experiencing</b> | Having recurrent recollections of the event<br>Having recurrent dreams about the event<br>Acting or feeling as if the event were happening again (hallucinations or flashbacks)<br>Feeling distress when exposed to cues that resemble the event |
| <b>Avoidance</b>       | Avoiding thoughts, feelings, conversations, activities, places or people that are reminders of the event<br>Less interest or participation in activities that used to be important<br>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.**

# TRAUMA RESOURCES



## 15. 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 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 gave information about you or your loved one's injuries. This allows the team at the trauma center to be ready to provide treatment as quickly as possible.

The trauma team typically includes;

- Trauma Surgeons
- Emergency Doctors
- Nurse
- Respiratory Therapist,
- X-ray staff
- Social worker
- Chaplain

The team is ready 24 hours a day, seven days a week. Also, board-certified specialty doctors are on call to help with care.

### INITIAL ASSESSMENT

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

- An exam to find life-threatening injuries
- X-rays, ultrasound and perhaps a CT scan so that doctors can better understand the extent of the injuries
- If needed, transfer to the Operating Room (OR) for surgery.
- Transfer from the ED or OR to a unit in the hospital.

### HOW THE HOSPITAL CARES FOR THE FAMILY

Initially the patient is evaluated in the ED. Please note that the ED is under Restricted Access. While the patient is being assessed, family can't be present in the room. A member of the medical team will keep the family and friends informed. Every attempt will be made to update the family as soon as possible.

### WHY A PATIENT MAY HAVE A FAKE NAME

Sometimes the hospital does not know the name of the patient. To make sure that doctors can match the right lab and other reports with that patient, the hospital may give the person a fake name.

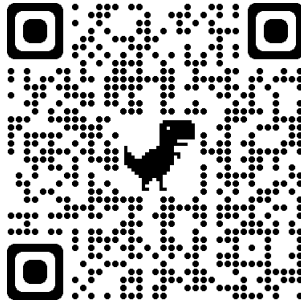
The fake name may have made it hard for you to locate your loved one at first. When hospital staff can be sure of your loved one's name, they change to the real name.

If the patient is a victim of crime, we keep her/him listed as a "No Info" patient. This is for safety reasons.

## 16. ABOUT TRAUMA SURVIVORS NETWORK

Methodist Hospital is part of the National Trauma Survivor's Network (TSN). You and your family has access to a large community of families who have experienced traumatic injury and recovery. Trauma can feel isolating at times and our hope is to help you feel connected and supported.

To visit the National Trauma Survivor's Network website, use the link or QR code below:  
<https://www.traumasurvivorsnetwork.org/pages/home>



The Trauma Survivor's Network offers a number of programs for you:

- **Peer Visitation** – You can be visited in the hospital by a past trauma survivor – Ask your hospital's TSN coordinator about this if you are interested.
- **Support Groups** - Ask your hospital's TSN coordinator about this if you are interested.
- **Next Steps** – This course teaches you how to become more active and take control of your recovery

The Trauma Survivor's Network also offers a number of online resources:


- **Traumapedia** – A place to learn read a lot about trauma and learn new things
- **TSNnotes** – Read the TSN newsletter
- **Recovery Assessment** – Take a survey to understand your strengths and resources, as well as identify potential problems or challenges you may face in your recovery
- **Social Media** – The TSN has a Facebook, Instagram, Twitter, and LinkedIn

### Wisdom From Other Trauma Patients and Their Families

Please visit the websites below to read stories from past trauma survivors and their families. You may discover some ideas or tools that will help your family moving forward. You can also share your own story with others. Writing about your experiences can help you, your family, and others.


Use this link or QR code to read stories from survivors

<https://www.traumasurvivorsnetwork.org/pages/survivor-stories>



Use this link or QR code to read stories from survivors' families and friends

<https://www.traumasurvivorsnetwork.org/pages/stories-from-family-friends>



# **LEAVING THE HOSPITAL**

**This information will  
be gathered at the  
May Teams action  
meeting**

## 18. WHAT HAPPENS AFTER THE HOSPITAL?

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 or social worker 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 for care. If you do not have health insurance, the social worker or financial counselor can help find out where you can apply for assistance.

### » Rehabilitation hospital

People who can do three hours or more of therapy each day may be able to go to an acute rehabilitation hospital. Patients have freedom of choice when deciding upon a rehabilitation hospital.

### » Skilled nursing facility

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.

### » Home care

Some people can live at home with nurses and therapists coming to them.

### » Outpatient care

People who are able to leave their home for follow-up care will be given instructions when they are discharged.

### » Home with no home care

Many people do not need home care from a nurse or therapist. They are discharged to the care of family.

### » Online services

My IU Health is a service that provides convenient access to online billing and medical record systems. To access online billing and health services please go to [www.myiuhealth.org](http://www.myiuhealth.org).

### » Outpatient Trauma Clinic

Some trauma patients will need to be seen in the Methodist outpatient trauma clinic. In this case, instructions will be provided prior to discharge and/or in your discharge paperwork.





