

# Pre-Operative Spine Class



THE DRIVE IS *here.*

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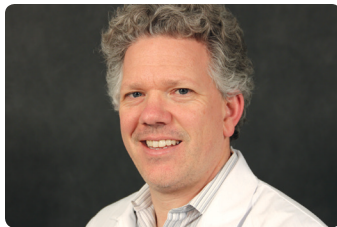
Our mission  
is to strengthen  
the health of  
our community,  
one life at a time.



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# Your healthcare team



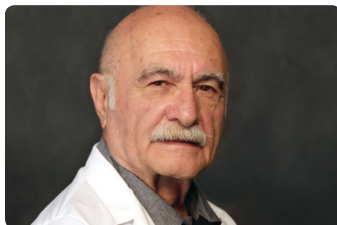
**JAMES D. MILLS, MD**  
CHIEF OF  
NEUROSURGERY

- Completed surgical internship and neurosurgical residency at West Virginia University
- Skilled in minimally invasive spine surgery and endoscopic surgery
- Areas of special interest are neuro-oncology, skull base and cerebrovascular surgery and spine surgery
- Published a variety of peer-reviewed journal articles and conducted research on many aspects of traumatic brain injury



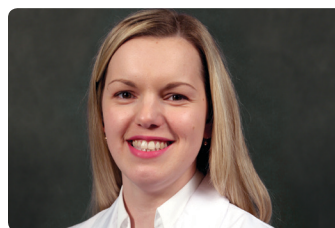
**CATHERINE KOTALIK, PA-C**  
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- Completed a master of science in physician assistant studies at the University of Nebraska Medical Center
- Received a bachelor of science from the University of Nebraska-Lincoln
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- Worked on the development and foundation of the Neurosurgical Program at Bayhealth



**NASROLLAH FATEHI, MD, FAANS**  
NEUROSURGEON

- Worked at Atlantic Neurosurgery PC in Virginia Beach, Virginia prior to joining Bayhealth
- Served in medical staff leadership positions at The Chesapeake Regional Medical Center, including chairman of the Department of Surgery
- Board-Certified Neurological Surgeon
- Provides care and treatment for all elective and emergency surgical and nonsurgical conditions of the brain, spinal cord, peripheral nerves, and spine



**VOLHA KOMAR, PA-C**  
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- Completed bachelor of science in physician assistant sciences at the University of Maryland Eastern Shore
- Completed bachelor's and master's degrees in the study of language, literature, linguistics, and teaching. She taught at a middle school in Minsk, Belarus working with students for whom English was a second language
- Completed clinical rotations and served as a first assist for a variety of surgical cases at Peninsula Regional Medical Center in Salisbury, Maryland
- Prior to coming to Bayhealth, she worked at Atlantic General Hospital assisting in the care of patients with various neurological disorders
- Certified in Advanced Cardiovascular Life Support and Basic Life Support



**MEGHAN SCHEPENS, MSN, ANP, CCRN, CNRN**  
NEUROSURGERY NURSE PRACTITIONER

- Completed master of science in nursing — adult nurse practitioner at the University of Delaware
- Received a bachelor of science in nursing from the University of Delaware
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**OLIVIA WASHINSKI, BSN, RN, CBIS**  
NEUROSURGICAL NURSE NAVIGATOR

Olivia Washinski started her nursing career at Bayhealth in trauma and emergency medicine at both Kent General and Milford Memorial. She became the neurosurgery nurse navigator in December 2013. Prior to joining Bayhealth, Washinski worked as a nurse in emergency medicine in Baltimore, Maryland. She completed her BSN at Johns Hopkins School of Nursing and her BS in community health at the University of Maryland. Washinski is also one of our certified brain injury specialists.



**BRAD KIRKES, FACHE**  
VICE PRESIDENT OF ANCILLARY AND CLINICAL SERVICES

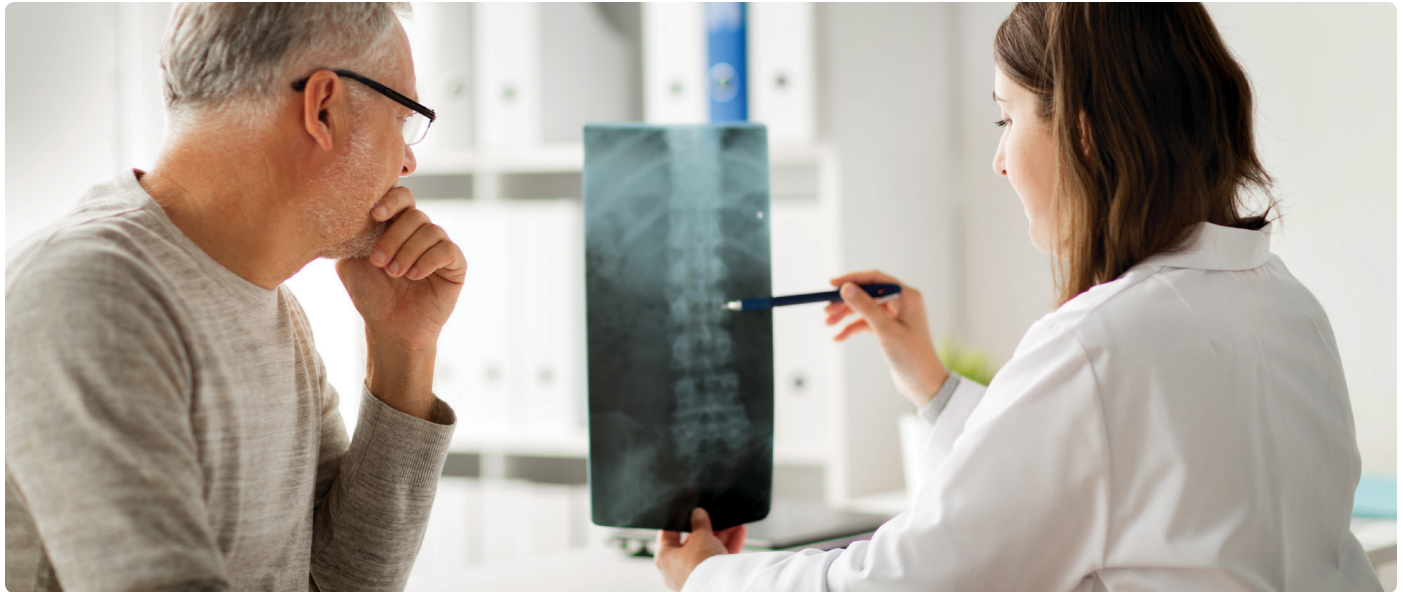
Brad Kirkes began his employment at Bayhealth in 2005 as the director of the Orthopaedic and Rehabilitation Service Line. Over the years, he has gained additional responsibilities and was named the vice president of Ancillary and Clinical Services at Bayhealth in January 2012. Current areas of responsibility include: Neurosciences Service Line, Oncology Service Line, Orthopaedic Service Line, Cardiovascular Service Line, Laboratory and Pathology Services, and Sleep Centers. Kirkes is a fellow in the American College of Healthcare Executives.



**THOMAS CAIRO, MBA**  
SENIOR DIRECTOR, NEUROSCIENCES SERVICE LINE

Thomas Cairo joined Bayhealth in 2016 as the senior director of the Neurosciences Service Line. He moved here from Albany, New York where he worked at Albany Medical Center as the practice administrator for the Division of Neurosurgery. During his time at Albany Medical Center, Cairo obtained his master's in business administration, with a concentration in executive leadership. He is a member of the Neurosurgical Executives' Resource Value and Education Society and the Medical Group Management Association. Cairo is actively involved in the Brain Injury Committee of Delaware where he meets with other community members to share, network and educate both private and public policy makers on brain injury prevention and treatment.

# Spine procedures



## Lumbar spine arthritis

Arthritis is a common problem of the lumbar spine that can lead to a number of different symptoms. Lumbar spine arthritis is most commonly seen in older patients, but can be seen in all age groups. Patients who are at higher risk of developing lumbar spine arthritis include:

- Older patients
- Obese individuals
- Heavy laborers
- Those with previous injuries to the spine

Arthritis of the lumbar spine is a problem that occurs in the joints that connect each spinal segment, or vertebrae. The vertebrae are connected in three places.

In front of the spinal cord, the vertebrae are separated by a cushion-like spinal disc. Behind the spinal cord, the vertebrae are connected by two small joints called facet joints. These facet joints, together with the spinal disc, allow movements of the spine, including forward bending, arching your back, or sideways twisting.

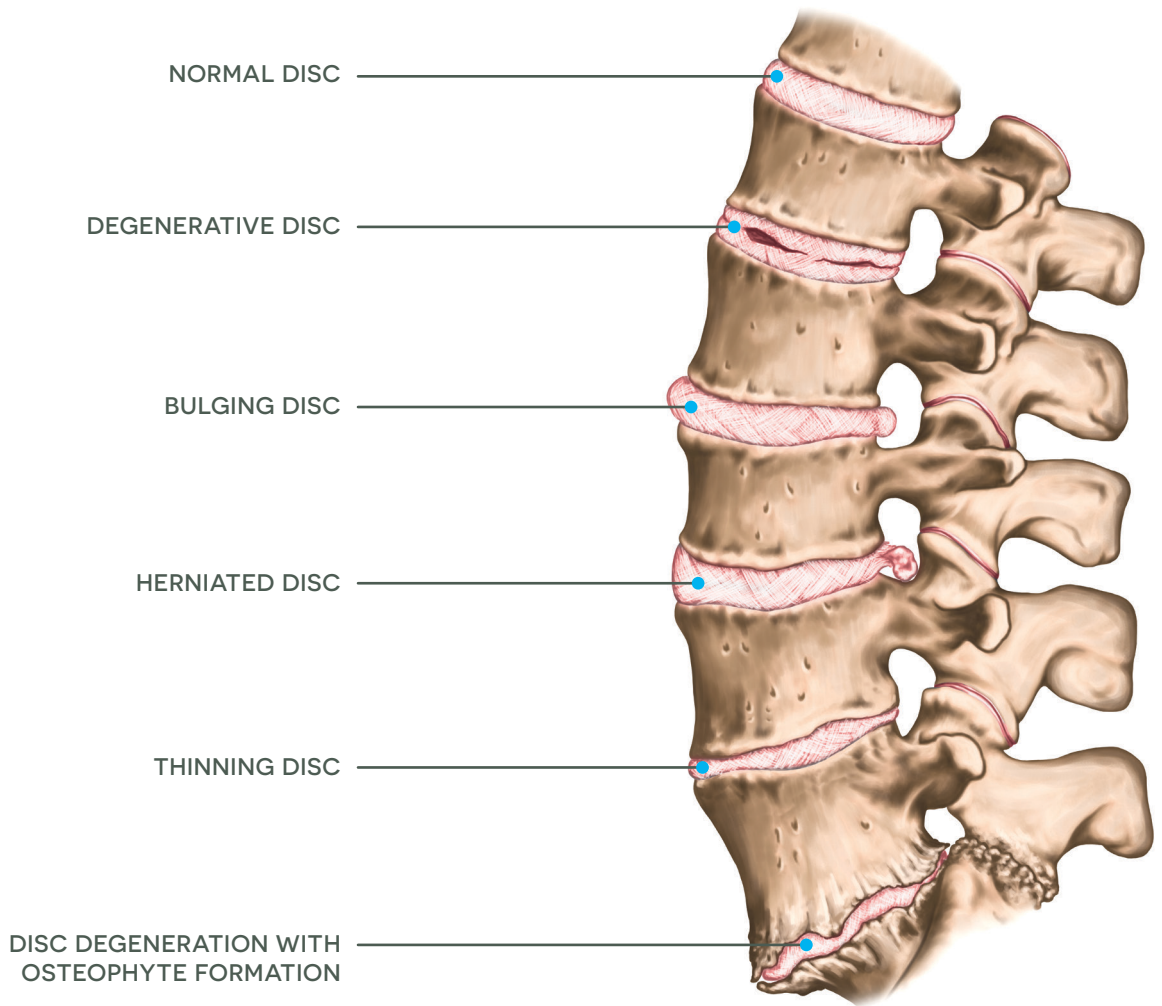
The most common type of arthritis to occur in the spine is osteoarthritis, or “wear-and-tear” arthritis. When osteoarthritis occurs in the spine, doctors refer to this as spondylosis. When the spinal joints become arthritic, spine movements become painful and stiff.

Lumbar spine arthritis often is seen together with other spinal conditions including:

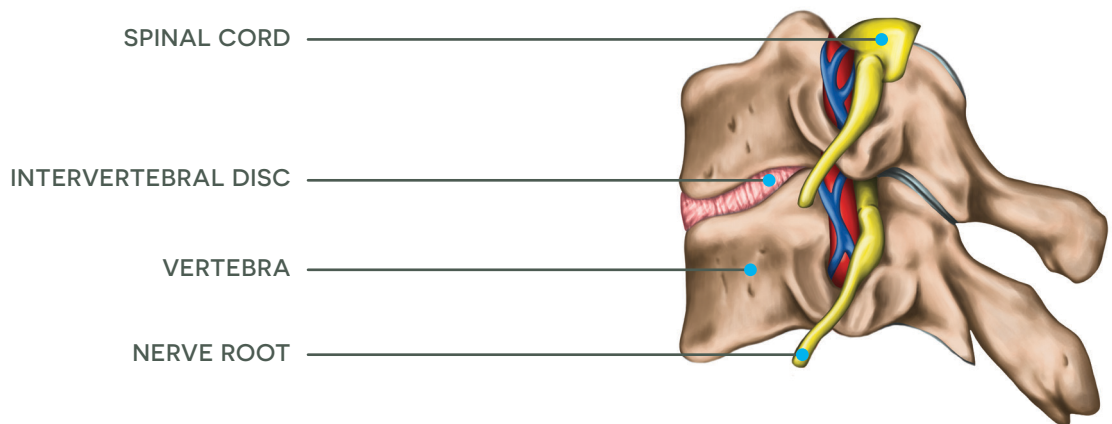
**Disc Degeneration** — As the facet joints wear out in arthritic conditions of the spine, the disc can also wear out over time. Facet arthritis often proceeds along with disc disease of the lumbar spine.

**Spinal Stenosis** — This condition is often seen in patients with lumbar spine arthritis. As arthritis progresses, nerves become pinched, leading to symptoms of spinal stenosis. These symptoms may include leg pain, numbness, tingling, and difficulty walking.

## SPINE CONDITIONS



## NORMAL SPINAL SEGMENT



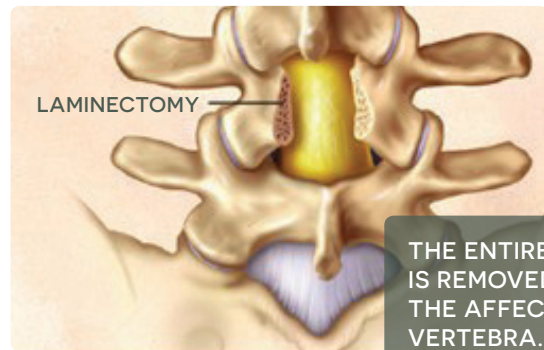
## Minimally-invasive spine surgery

MISS was developed to treat spine problems with less injury to the muscles and other normal structures of the spine. The doctor uses specialized instruments to access the spine through small incisions. Traditionally, with open surgery, the incision would be 5 to 6 inches long and moves the muscles to the side in order to see the spine. This pulling or “retracting” of the muscles can damage the soft tissue. This can lead to a lengthier recovery period. With MISS, a small incision 1 to 2 inches long is made. A retractor is inserted through the incision to help spread the muscles apart. Once the muscles have been moved the surgery is performed and if needed, screws and rods can be placed. In some cases, an operating microscope is used to help the surgeon see more clearly. Advantages of MISS are smaller incisions, less bleeding, and shorter stays in the hospital.



## Laminectomy

Laminectomy is a surgery to remove lamina- the back part of the vertebra that covers your spinal canal. Also known as decompression surgery, laminectomy enlarges your spinal canal to relieve pressure on the spinal cord or nerves. This pressure can be caused by a variety of problems, including bony overgrowths within the spinal canal (spinal stenosis) or by a herniated disc. Laminectomy is most commonly performed on the vertebrae in the lower back and in the neck.



## Posterolateral Lumbar Fusion

Posterior Lumbar Fusion (PLF) is the general term used to describe the technique of surgically mending two (or more) lumbar spine bones together along the sides of the bone. Bone graft is placed alongside the spine bones (not in between the disc spaces, which is called an interbody fusion), and ultimately fuses together. PLF may be performed in conjunction with or without a posterior decompression (laminectomy) and/or instrumentation (use of metal screws/rods).





## Microlumbar discectomy

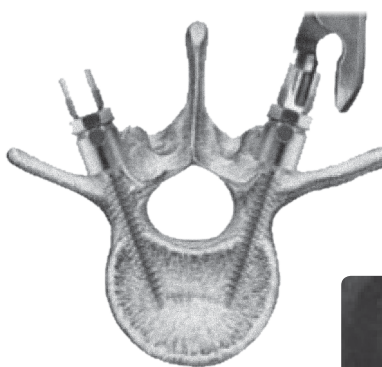
During surgery, patients are positioned face-down on the OR table. The location of the incision is often confirmed by an intraoperative X-ray, using fluoroscopy. A skin incision about 1 inch in length is made to the side of the herniated disc. The muscles of the back are split to the spinal lamina, the back part of the spine. Splitting the muscles often results in less back pain and a faster recovery than stripping the muscles off the spine as is often required in open back surgery. Using a microscope, overlying soft tissue is removed and the bone exposed. Use of a microscope improves surgical lighting and vision, making the herniated lumbar disc

surgery more precise and accurate. Specially designed surgical instruments are then used to remove bone spurs and the lamina on the side of the approach. This is referred to as a laminectomy. The disc is then exposed by gently retracting the nerves. The fragments of herniated disc are then dissected free and carefully removed. After bleeding is stopped, the wound is closed with absorbable sutures. These sutures usually dissolve on their own in the body and do not need to be removed. Dermabond is used to close the skin and will fall off on its own as it heals.

## Pedicle screw fusion

The pedicle screw, which is sometimes used as an adjunct to spinal fusion surgery, provides a means of gripping a spinal segment. The screws themselves do not fixate the spinal segment, but act as firm anchor points that can then be connected with a rod.

The screws are placed at two or three consecutive spine segments and then a short rod is used to connect the screws. This construct prevents motion at the segments that are being fused. After the bone graft grows, the screws and rods are no longer needed for stability and may be safely removed with a subsequent back surgery. However, most surgeons do not recommend removal unless the pedicle screws cause discomfort for the patient.

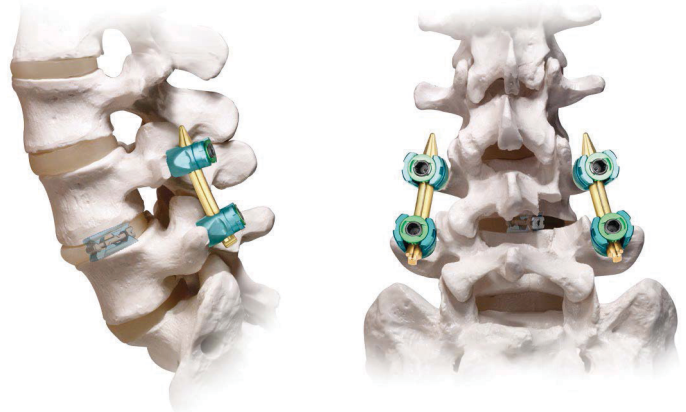
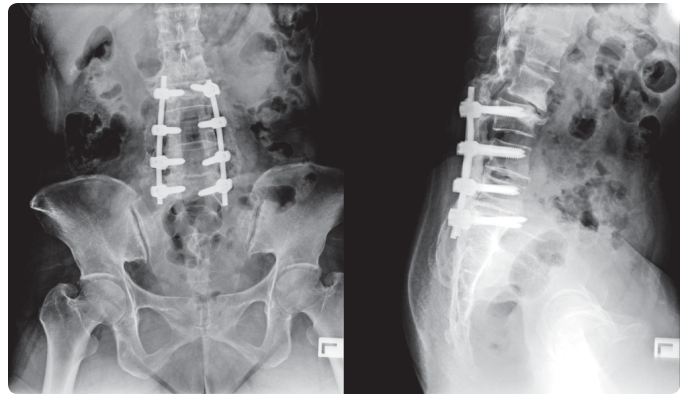


## Interbody Fusion/ Transforaminal Lumbar Interbody Fusion (TLIF)

In the case of a spinal fusion, it is necessary for multiple bone fragments to heal together, or “fuse,” to create one solid bone. A fusion does not occur immediately at the time of surgery, but rather it is a process that occurs over time.

One method of fusing the lumbar spine involves removing the intervertebral disc. When the disc space has been cleared out, a metal, plastic, or bone spacer is implanted between the two adjoining vertebrae. These spacers, or “cages”, usually contain bone graft material. This promotes bone healing and facilitates the fusion. After the cage is inserted, surgeons often use metal screws, plates, and rods to further stabilize the spine.

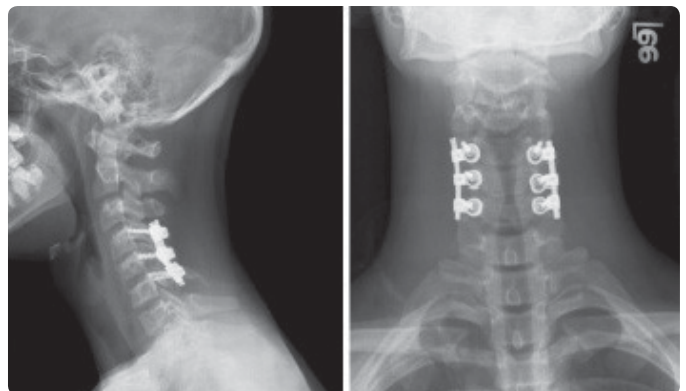
With the TLIF technique, the surgeon approaches the spine a little bit from the side. This requires less movement of the nerve roots.



## Posterior cervical laminectomy and fusion

During posterior cervical laminectomy and fusion, the patient is positioned face down (prone) on the operating table. The patient’s head is held securely in position and neck immobilized. A special monitoring system checks the spinal cord and nerve function throughout the procedure to prevent injury. Fluoroscopy, a type of real time x-ray, is used throughout the surgery to see the patient’s anatomy and guide instruments.

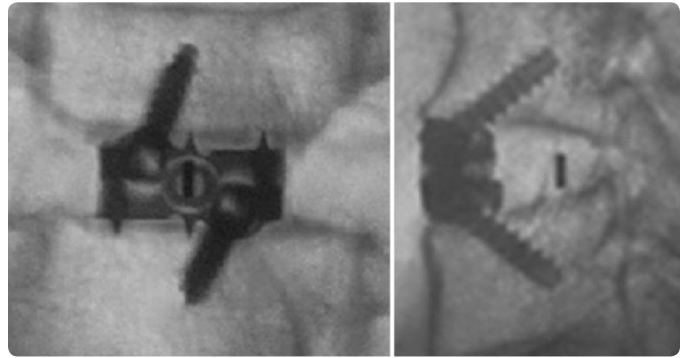
A skin incision is made in the middle of the back of the neck. Muscles and other soft tissues are moved away from the spine. Special surgical instruments are used to carefully remove the lamina and remove tissue and bone compressing the spinal cord and nerve structures. The



lamina and other bone removed may be prepared and used for bone graft. Rods, screws and bone graft are implanted to stabilize the neck and to facilitate fusion and healing.

## Anterior Cervical Discectomy and Fusion (ACDF)

Anterior cervical discectomy and fusion is performed by making a small incision in the front part of the neck. The trachea and esophagus are gently shifted aside and the affected disc(s) are carefully removed. The operating microscope is utilized to improve the safety and efficacy of the operation. The spinal cord and nerve roots are decompressed while being visualized. Once an adequate decompression is achieved, a spacer is placed in the region once occupied by the disc(s). A titanium plate is secured with screws to the vertebral bodies above and below the level(s) of decompression. A bone graft may be used for multiple level decompression.



## Bone stimulator

Electrical bone growth stimulators are a supplemental form of therapy to help enhance the body's bone healing process... a process that is absolutely essential for the success of any type of spinal fusion surgery. Human bone is actually a living tissue and, like skin, has the inherent ability to heal itself when broken or injured. Broken bone helps promote the body's bone healing process by creating its own electrical field. In the same way, application of an electrical stimulator can enhance the body's natural bone healing process.

While there are no clear-cut rules for when a patient may need electrical stimulation to help achieve a solid fusion, it is generally thought that patients who may be vulnerable to bone healing problems include:

- Patients who have had a previously failed spine fusion
- Patients who are having a multi-level spinal fusion
- Patients who smoke
- Patients with a diagnosis of Grade III (or worse) spondylolisthesis

Additional factors that may lessen the chance of obtaining a solid fusion include: osteoporosis, vascular disease, obesity, diabetes, renal disease, alcoholism, and medications that deplete calcium.

A bone stimulator is contraindicated in those patients that have a pacemaker or an Automatic Implantable Cardioverter Defibrillator (AICD).

# Pre-op through discharge



From pre-operative teaching, through discharge, to home, your healthcare team will work with you to ensure a successful surgical outcome. Your healthcare team believes that you play a key part in your health, and you will be involved in all aspects of your care. Our team will guide you through the surgical process, with an individual plan to fit your needs.

## Your healthcare team

**Neurosurgeon:** Your neurosurgeon is the doctor who performs the actual surgery.

**Physician Assistant (PA):** The PA assists your surgeon during the surgery. They will follow you during your hospital stay and handle your discharge instructions. Your first follow up appointment after surgery will be with the PA.

**Anesthesiologist:** Your anesthesiologist is the doctor who administers anesthesia during your surgery, monitors your vital signs during and after surgery, and oversees post-surgical pain control.

**Primary Care Physician/Hospitalist:** Your primary care physician/hospitalist takes care of your general health. S/he may be called on to assist with your care while you are in the hospital if your condition requires. S/he will perform your pre-operative physical/medical clearance.

**Nurse:** Nurses will be seen in a variety of positions during your hospital stay. Some nurses will attend to your daily healthcare needs, some work in the operating room, some in the admissions area, and some work in the home care area.

**Physical Therapist:** Your physical therapist is trained to assist you in regaining strength and motion after surgery. A physical therapist will work with you during your hospital stay. They will try to get you up out of bed as soon as possible after surgery.

**Occupational Therapist:** Your occupational therapist is trained to teach you to perform your activities of daily living such as dressing and bathing after surgery.

**Discharge Planner:** Your discharge planner is responsible for lining up all of your discharge needs, including home medical equipment and home healthcare.

**Nurse Navigator:** The neurosurgical nurse navigator works directly with your neurosurgeon to coordinate your care pre-operatively to the time of discharge after your surgery. The nurse navigator arranges and coordinates the spine class before your surgery and works with the discharge planner to ensure you have all of your needs met at time of discharge.

## Preparing for surgery

- Do not eat or drink anything after midnight the night before your surgery.
- Do not use any make-up, hair styling products, or moisturizers, and do not wear jewelry, hearing aids, or dentures on the day of surgery.
- Do not take blood thinners (Aleve, Motrin, Coumadin, Plavix, fish oil) for 7 days before surgery unless instructed to do so by your surgeon.

The bloodwork described in the pre-admission information booklet needs to be completed within 14 days of surgery. There is a portion of the bloodwork that must be completed at Bayhealth Kent General.

Pre-operative clearance by the primary care physician must be completed within 30 days of surgery. You must call your primary care physician to schedule this appointment. If you do not do this, your surgery may be delayed. Our office will fax your primary care doctor a letter stating your name, surgery type and date.

Follow the showering instructions you were given by your surgeon. **The hospital will call you the night before your surgery between 3 and 5:30 p.m. to discuss your arrival time for surgery.** IF YOUR SURGERY IS ON A MONDAY, the hospital will call you the Friday before.

## Your day of surgery

### YOUR SURGERY

You will report to Outpatient Registration. Do not sign in, but tell the staff that you are there for surgery. You will be shown where to sit outside the day surgery unit.

The nurse will bring you and your family back to the patient area and prepare you for surgery. You will be placed in a gown, and an IV will be started. Pressure stockings (sometimes called TEDS) will be placed on your legs to help prevent blood clots. Pneumatic boots will also be placed over your pressure stockings. These boots are connected to an air pump machine. The pump

tightens and loosens different parts of the pneumatic boots. This helps push the blood back up to the heart to keep clots from forming.

Your surgeon will see you in the holding area and will mark your operative area. There they can go over any last minute information and answer any questions.

Your family will be escorted to the surgical waiting room where they can wait during your surgery.

### AFTER YOUR SURGERY

Your surgeon will meet privately with your family to discuss your surgery. When you are settled in your room, your family will be told where they can visit you.

Also while in PACU, you will have supplemental oxygen to assist you while you are waking up from your surgery. There will be anti-embolism stockings on your legs as well as pneumatic boots. These help to prevent blood clots. When you are awake and more alert, you will be transferred to your room.

Depending on the extent of your surgery, your surgeon may have you scheduled for a late afternoon session of physical therapy.

**Pain Pills** — You will be started on pain pills to control your pain. In order for you to get the maximum benefits from your physical therapy, it is recommended that you take pain medication prior to your therapy sessions.

**Pain Scale** — Bayhealth currently uses a pain scale that rates your pain from 0–10. This enables us to understand the intensity of your pain and to give you medication accordingly.

**Eating** — When you return to the floor after surgery you will be able to eat ice chips and then clear liquids. If you have no problems drinking clear liquids, then you may be able to eat soft foods. If you do OK with soft food, then you may begin eating your regular diet.



INCENTIVE SPIROMETER

### **Coughing and Deep Breathing Exercises** —

These exercises are meant to prevent lung congestion after surgery.

1. To cough, take a deep breath and cough forcefully from your abdomen.
2. To breathe deeply, inhale as deeply as you can and hold while counting to 10. Now exhale all the air. Repeat this exercise 5 times.

Another part of your deep breathing exercises uses a device called an incentive spirometer (*shown above*). This device helps you to fully expand your lungs. You should use the incentive spirometer about 10 times every hour while you are awake.

### **INSTRUCTIONS FOR INCENTIVE SPIROMETER**

1. Sit on the edge of your bed if possible, or sit up as far as you can in bed.
2. Hold the incentive spirometer in an upright position.
3. Place the mouthpiece in your mouth and seal your lips tightly around it.
4. Breathe in slowly and as deeply as possible. Notice the blue piston rising toward the top of the column. The indicator should reach the blue outlined area.
5. Hold your breath as long as possible. Then exhale slowly and allow the piston to fall to the bottom of the column.
6. Rest for a few seconds and repeat steps one to five at least 10 times every hour.
7. Position the indicator on the left side of the spirometer to show your best effort. Use the indicator as a goal to work toward during each slow deep breath.
8. After each set of 10 deep breaths, cough to be sure your lungs are clear. If you have an incision, support your incision when coughing by placing a pillow firmly against it.
9. Once you are able to get out of bed safely, take frequent walks and practice the cough.

### **Post-operative day one (first day after surgery)**

Breathing exercises continue.

Physical Therapy begins today with two sessions spread throughout the day. Each day following your surgery, you should progress to more advanced exercises. With the help of your therapists, a program of exercises will be tailored to your individual needs.

Pain medicine will be in pill form by the second postoperative day.

## Planning for discharge after spine surgery

Usually after 1-3 days in the hospital, most patients are ready for the next step in the recovery process. You may need ongoing physical therapy to continue your progress with mobility, strength and range of motion.

### SOME PATIENTS RECEIVE THESE SERVICES:

- 1. Home Health Agency:** Nurses and physical therapists come to your home 2-3 days per week. Your insurance company and/or Medicare will pay for this if you meet the criteria of being homebound. You may have a co-pay with each visit, depending on your insurance. Bayhealth offers home health or you may choose another agency.
- 2. Outpatient Physical Therapy:** You attend an outpatient therapy center 2-3 days per week. Bayhealth offers outpatient therapy in both Milford and Dover, or you may choose another facility.
- 3. Inpatient Rehabilitation/Skilled Nursing Facility:** If you need intensive therapy, ongoing medical management by a physician, and 24 hour nursing care, you may be transferred to inpatient rehabilitation. Medicare and other insurers only approve your stay at inpatient rehabilitation if you have other medical conditions and require moderate assistance by another person to walk or get out of bed.

The above 3 options cannot be decided upon before surgery. It depends on how you are doing after surgery to determine the most appropriate level of care. Your physical therapist and discharge planner will assist you in this process.

## Life after spine surgery

### RECOVERING AT HOME

**Pain Medication:** Take your pain medication as prescribed by your surgeon. As time goes by, you should need less and less pain medication in order to perform your daily activities without pain. Ice may also be used to control pain. Use ice for 20 minutes at a time.

**Laxatives and Stool Softeners:** Many forms of pain medicine can cause constipation. Foods like high fiber cereals, fruit, beans, vegetables, and whole grain breads, and drinking water can help with constipation. A stool softener can help with hard bowel movements.

**Stockings:** Anti-embolism stockings may be required for a period of time after your surgery. These snug-fitting stockings are easiest to put on first thing in the morning before getting out of bed. Your surgeon will determine the length of time you will need to wear these stockings.

### ACTIVITY AT HOME

**Bathing:** You may shower on the second day following surgery unless otherwise instructed. If you have a tub, you may want to use a shower bench or chair.

**Walking:** It is important that you walk every 2 hours while awake. You can increase your distance and duration daily.

Check with your surgeon before starting or resuming any of the following activities:

- Driving
- Returning to work
- Heavy lifting
- Starting a new exercise program
- Sexual activity



# Mobility after surgery

## Bed mobility following spinal surgery

It is important immediately after spine surgery that you keep your spine in a neutral position when performing any functional activities such as getting out of bed, standing up and walking. When getting out of bed, you should use the “log roll” technique. This will reduce your pain and maintain your spine in a neutral position.

## Important reminders

After spinal surgery, it is important to stay as mobile as possible to avoid complications such as blood clots or pneumonia. DO walk as much as possible, starting with frequent short distances. Gradually increase your distance as you feel stronger.

**DO NOT** sit for more than 20–30 mins at a time. This will cause stiffness in your back muscles which will make it more difficult for you to stand, increasing the stress on your back muscles. When getting up, remember the “neutral spine” posture.

**DO NOT** bend or twist at your waist.

**DO NOT** lift anything greater than 10 lbs.

- When sitting, keep your spine upright and supported. This will reduce the strain on your spine. Choose a chair that supports your spine. Avoid soft chairs or couches. Place a pillow behind your back while sitting.
- When in bed, avoid positions that twist or angle your spine. Avoid curling up in a “fetal position” if lying on your side. Use a pillow between your knees to keep your spine straight.
- If given a brace to wear, it should be worn whenever you are up and out of bed. Follow your doctor’s instruction regarding how long or how often you are to wear it.



- 1 *Bend up both knees carefully to place your feet flat on the bed. Gently pull in your core muscles (abdominal and buttock muscles) to obtain a neutral spine position.*



- 2 *Carefully roll your whole body as a unit onto your side, making sure you are not too close to the edge of the bed. It may help to extend your bottom arm over your head prior to turning on your side. Bring your top arm across your body and use it to push up.*





- ③ *Slowly allow your legs to lower off the edge of the bed, at the same time pushing up through your arms to push yourself into a seated position.*



- ⑤ *When getting ready to stand, continue to gently set your core muscles and use your arms to push up from the surface you are sitting on.*



- ④ *Move slowly so that you can maintain a neutral spine throughout the activity. Try to keep your spine in this neutral position as you are sitting on the edge of the bed. Reverse this process when you lie down.*



- ⑥ *Once you are standing up, continue to keep your spine straight; breathe normally to relax your upper body. When you are ready, physical therapy will begin gait training activities with you.*

# Glossary of terms

**Allograft:** Sterile bone derived from another human which is used for grafting procedures.

**Anterior:** The front portion of the body. It is often used to indicate the position of one structure relative to another.

**Autograft:** Bone transplanted from one part to another part of the body in the same individual.

**Bone Plate:** Usually a relatively thin metal device which is affixed to bone via screws. Bone plates are used to immobilize bones or bone fragments such that healing can occur.

**Bone Screw:** A threaded metal device which is inserted into bone. The functions of bone screws are to immobilize bones or bone fragments or to affix other medical devices, such as metal bone plates, to bones.

**Bone Stimulator:** Sends low level electrical signals to the fusion site. The electrical signals activate the body's natural bone healing process, which may be impaired in at-risk patients.

**Degenerative Disc Disease (DDD):** The loss of the structural and functional integrity of the disc.

**Dermabond:** A liquid skin adhesive or glue used by doctors to close wounds.

**Discs (Intervertebral):** The tough, elastic structure that is between the bodies of spinal vertebrae that provides cushion to the stresses on the spinal column.

**Fusion:** Union or healing of bone.

**Herniated Disc:** A herniated disc is a condition that affects the back. It can cause pain, numbness, weakness, or tingling down one or both legs. It is a tear in the outer, fibrous ring of an intervertebral disc which allows the soft, central portion to bulge out beyond the damaged outer rings, putting pressure on nerves and/or the spinal cord.

**Inferior:** Situated below or directed downward.

**Interbody Fusion:** A bone graft between the bones of the spine in the area usually occupied by disc. In preparation for the spinal fusion, the disc is removed entirely.

**Internal Fixation:** The immobilization of bone fragments or joints with implants in order to promote healing or fusion.

**Lamina:** An anatomical portion of a vertebra. For each vertebra, two lamina connect the pedicles to the spinous process as part of the neural arch.

**Laminectomy:** An operation for removal of part or all of the lamina of a vertebra, commonly performed in order to be able to remove an intervertebral disc protrusion or to decompress a nerve root or spinal cord.

**Medial:** Situated closer to the midline of the body.

**Minimally Invasive Spine Surgery (MISS):** This means that the procedure does not involve a long opening in the skin (incision), it avoids large amounts of damage to the muscles around the spine, can result in less pain after surgery and a faster recovery.

**Microlumbar Discectomy (MLD):** Surgical removal of part or all of an intervertebral disc that is compressing the spinal nerve root.

**Nerve Root:** The initial segment of a nerve leaving the central nervous system.

**NSAIDs:** Nonsteroidal anti-inflammatory drugs. Medication that provides pain, fever and/or anti-inflammatory relief. These should be avoided right after surgery because they may cause nausea, stomach bleeding or kidney problems. Most NSAIDs interfere with blood clotting, bone fusion, and they can also make high blood pressure worse and affect the way blood pressure medicines work. Examples include: Ibuprofen, Advil, Motrin, Aleve, Aspirin, and Naproxen.

**Pedicle:** The part of each side of the neural arch of a vertebra. It connects the lamina with the vertebral body.

**Pedicle Screw Fusion (PSF):** Provides a means of stabilizing a spinal segment. The screws themselves do not fixate the spinal segment, but act as firm anchor points that can then be connected with a rod. The screws are placed at two or three consecutive spine levels and then a short rod is used to connect the screws. This construct prevents motion at the segments that are being fused.

**Posterior:** Located behind a structure, such as relating to the back side of the human body.

**Radiculopathy:** Radiculopathy is the medical term for the pain, numbness, or tingling that occurs when nerves coming from the spinal cord get pinched or damaged. Radiculopathy can affect different parts of the body, depending on which nerve or group of nerves is affected. People sometimes refer to radiculopathy as having a “pinched nerve.”

**Rod:** In spinal applications, a slender, metal implant which is used to immobilize and align the spine.

**Spinal Cord:** The longitudinal cord of nerve tissue that is enclosed in the spinal canal. It serves not only as a pathway for nervous impulses to and from the brain, but as a center for carrying out and coordinating many reflex actions independently of the brain.

**Spine:** The flexible bone column extending from the base of the skull to the tailbone. It is made up of 33 bones, known as vertebrae. The first 24 vertebrae are separated by discs known as intervertebral discs, and bound together by ligaments and muscles. Five vertebrae are fused together to form the sacrum and 4 vertebrae are fused together to form the coccyx. The spine is also referred to as the vertebral column, spinal column, or backbone.

**Spinal Fusion:** A surgical procedure to permanently join bone by interconnecting two or more vertebrae in order to prevent motion.

**Spinal Stenosis:** Narrowing in the diameter of the spinal canal due to new bone formation which may result in pressure on the spinal cord or nerve roots.

**Spondylolisthesis:** Degenerative spine condition where one vertebra slips forward and over the vertebra below it.

**Spondylosis:** The basic definition for spondylosis is “spine problem.” The term typically refers to age-related degeneration of the spine, either in the vertebrae, facet joints or intervertebral discs. It is an umbrella term used to describe the weakened state of the spine as people age.

**Surgical Staples:** Specialized staples used in surgery in place of stitches to close skin wounds.

**Superior:** Situated above or directed upward toward the head of an individual.

**Transforaminal Lumbar Interbody Fusion (TLIF):** Stands for “Transforaminal Lumbar Interbody Fusion.” This is a spinal fusion procedure that fuses the front and back section of the spine through a posterior (back) approach.

**Vertebrae:** A stack of bones that sit on top of one another like a stack of coins. Each of these bones has a hole in the center. When stacked, the bones form a hollow tube that protects the spinal cord.

**Vertebral End-Plates:** The superior and inferior plates of cortical bone of the vertebral body adjacent to the intervertebral disc.



# Patient's rights and responsibilities

## Patient's rights

Bayhealth is dedicated to providing quality medical care while preserving patients' dignity and importance as individuals. You have the right to reasonable access to care. We consider you a partner in your hospital care. When you are well informed, participate in treatment decisions and talk openly with your doctors and other health professionals you are promoting your own safety and making your care as effective as possible. Your rights as a patient are an important element of our care for you. While you are a patient we respect your rights including the following:

### NOTIFICATION OF ADMISSION

- To expect that a family member or representative and your physician will be notified promptly of your admission to the hospital. Please provide your nurse with the name of the family member or representative and physician you wish to have notified.

### CONSIDERATE AND RESPECTFUL CARE

- To provide a patient centered environment and communication free from discrimination based on age, race, ethnicity, religion, culture, language, physical or mental disability, socioeconomic status, sex, sexual orientation, and gender identity or expression. (The Joint Commission RI.01.01.01, EP 29).
- To considerate and respectful care of your personal values and beliefs, at all times and under all circumstances, provided within a safe and comfortable environment.
- To care that responds to your psychological, social, emotional, spiritual, and cultural needs.
- To have a family member, friend, or other individual of your choice to be present with you for emotional support throughout your stay unless it compromises safety or if it is medically or therapeutically contraindicated for your support person to be present. (The Joint Commission RI.01.01.01, EP 28).

- To be informed in advance of receiving care of your rights as provided under federal and state rules and regulations.
- To know the identity of physicians, nurses, and others involved in their care, as well as when those involved are students, residents, trainees or volunteers.
- To have the opportunity to understand, discuss and request information related to specific procedures and/or treatments, the risks involved, the possible length of recuperation, and the risks and benefits of medically reasonable alternatives (unless in an emergency where the need for treatment is urgent and you lack the ability to make decisions).
- To ask all personnel involved in your care to introduce themselves, state their role in your care, and explain what they are going to do for you.
- To be free from restraints imposed as a means of coercion, discipline, convenience or retaliation by staff.

### COMMUNICATION AND INFORMATION ABOUT TREATMENT

- To participate in the development and implementation of your inpatient treatment/care plan, outpatient treatment/care plan, your discharge plan and your pain management plan.
- To have effective communication about your care and treatment.
- To obtain from physicians and other direct caregivers relevant, current, and understandable information concerning diagnosis, treatment and prognosis.
- To obtain your informed consent before the start of a procedure or treatment (other than in a medical emergency). The physician is responsible for explaining the treatment or procedure to you or your legal representative and obtaining your consent before the start of a procedure or treatment.
- To be informed if the Hospital proposes to engage in research affecting care and to have a full explanation prior to consent. You have the right to refuse to participate and to be assured that care will not be negatively affected by such a refusal.

- To ask and be informed of the existence of business relationships among the hospitals, educational institutions, and other health care providers or payers that may influence your treatment or care.
- To be informed by your physician about outcomes of care, treatment and services provided, including unanticipated outcomes.
- To be billed only for those services provided as allowed by law and regulation. Regardless of the source of payment, you have the right to request a summarized list of charges and to obtain information about those charges.

### **PARTICIPATION IN DECISIONS ABOUT YOUR CARE**

- To make decisions about care and treatment prior to and during the course of treatment; to refuse a recommended treatment or plan of care to the extent permitted by law and hospital policy, and to be informed of the medical consequences of this action. If the refusal of treatment prevents the hospital from providing appropriate care in accordance with professional standards, the hospital and/or physician may terminate its' relationship with you after reasonable notice and may make other arrangements for transfer, discharge or continuing care as necessary.
- To designate a decision-maker in case you are incapable of understanding a proposed treatment or procedure or are unable to communicate your wishes regarding care.
- To have family participate in care decisions or to exclude any or all family members from participating in your care decisions.
- To have help in obtaining consultation with another physician at your request.
- If you are a minor, your family and/or legal guardian will be involved in all treatment decisions for you, unless otherwise provided by law.
- To have help with learning more about your health, treatment and educational programs available to you upon discharge from the hospital.

- To be given information about realistic care alternatives when Hospital care is not indicated.
- To be cared for by staff who have been educated about patient rights and their role in supporting those rights.
- To access protective services.
- To have Bayhealth extend these same rights, including sharing of essential information, to your legally designated decision-maker or representative if you are unable to exercise these rights.

### **ADVANCE DIRECTIVES**

- To receive written information regarding Advance Directives utilizing our Five Wishes (Living Will instructions regarding care) and appointment of an Agent for making healthcare decisions.
- To receive assistance in making an Advance Directive.
- To expect that you will receive appropriate medical care regardless of whether you have made an Advance Directive.
- To have care at the end of life.
- To timely information about hospital policy that may limit its' ability to fully implement a legally valid Advance Directive.
- To provide a copy of your Advance Directive, if you have one, to be placed in your medical record.

### **PRIVACY AND SECURITY**

- To be interviewed, examined and treated in surroundings designed to give reasonable visual and auditory privacy.
- To not remain disrobed any longer than necessary and to expect that staff will use privacy curtains and doors to ensure your privacy.
- To refuse to talk with or see anyone not directly involved in your care.
- To request confidential status to protect your identity as a hospitalized patient.

- To be in a safe and secure patient environment free from abuse and/or harassment.
- To have a chaperone (all patients). To be advised of the right to a 3rd party or chaperone (for minors 15 years of age or younger) to be present during certain portions of a physical examination. (Reference 24Del.C. § 1769B).

## MEDICAL RECORDS AND CONFIDENTIALITY

- To security, personal privacy and confidentiality of your information.
- To obtain information in your medical record while in the hospital or after discharge, or after services at one of the Bayhealth ambulatory service sites, upon request, unless such information is specifically restricted by your attending physician for medical reasons. Your medical record belongs to Bayhealth but you may request a copy of your record after discharge by contacting Health Information Services at Kent General: 302-744-7041, or at Milford Memorial: 302- 430-5787. A nominal fee may be charged.
- To expect that all communication and records pertaining to your care will be treated as confidential by Bayhealth and all employees, unless you have given permission for release of information, or reporting is permitted or required by law.
- To OPT OUT of electronic information transfer to the Delaware Health Information Network (DHIN).
- To expect only the individuals directly involved in your treatment, individuals with responsibility for monitoring the quality of care, or individuals authorized by law or regulations to have access to your medical record.
- To review the medical records pertaining to your medical care and to have the information explained or interpreted as necessary, except when restricted by law.

## REASONABLE RESPONSE TO REQUESTS AND NEEDS

- To a reasonable response to the request for appropriate and medically indicated care and services regardless of race, creed, age, sex, sexual orientation, national origin or sources of payment for care. The Hospital will provide evaluation service and or referral as indicated by the urgency of the case.

- To be transferred upon your request and/or if your condition requires a level of care not provided by the hospital. The receiving hospital and receiving physician must first accept you for transfer. In some instances, you or your family may be asked to make initial contact with the receiving physician and/or hospital.

## ETHICAL DECISIONS

- To express and have addressed ethical questions that arise in the course of your care. This includes issues of conflict resolution, withholding resuscitative services, forgoing or withdrawal of life-sustaining treatment, and participation in investigational studies or clinical trials.
- To have ethical concerns brought before the Bayhealth Ethics Committee. This can be arranged through your physician, nurse, social worker, or the Patient Advocate Department.

## GRIEVANCES

- To voice concerns or have complaints/grievances reviewed and, when possible, resolved. Care will not be conditioned or compromised as a result of a grievance/complaint.
- To voice a grievance/complaint using the hospital's internal process write or call the Patient Advocate Department at Kent General: 302-744-7085 or at Milford Memorial: 302-430-5126.
- To contact the following external state licensing and certification agencies if your grievances/complaints have not been resolved by Bayhealth :

Office of Health Facilities Licensing and Certification,  
258 Chapman Rd. Chopin Building Suite 101,  
Newark DE 19702; 302-283-7220; Fax 302-283-7221;  
or Hotline 1-800-942-7373.

Unresolved quality of care and/or patient safety issues may be addressed to the Joint Commission, One Renaissance Boulevard, Oakbrook Terrace, IL 60181, 1-800-994-6610, or E-Mail: [complaint@jointcommission.org](mailto:complaint@jointcommission.org).

For patients with Medicare, grievance/complaints can be addressed through KEPRO at their helpline: 1-844-455-8708 or fax 1-844-834-7129, or mailed to KEPRO, Attention Beneficiary Complaints, 5201 West Kennedy Blvd., Suite 900, Tampa Florida 33609.

Patients with TRICARE can address grievance/complaints either mailed to: Health Net Federal Services, LLC, Attention Grievances, P.O. Box 2399, Virginia Beach, VA 23450-2399, or fax to 1-888-317-6155, and for billing complaints use online form @ www.TRICARE North Region or print form and mail to PGBA- Claims Correspondence, P.O. Box 870141, Surfside Beach, SC 29587-9741 or phone 1-877-TRICARE (1-877-874-2273).

## Patient responsibilities

Patients must be aware of the hospital's obligation to be reasonably efficient and equitable in providing care to other patients and the community. Hospital rules and regulations are designed to help the hospital meet this obligation.

### RESPECT AND CONSIDERATION

You are responsible for being considerate of other patients and hospital personnel by:

- Using television, telephone, radio and lights in a manner that does not disturb others,
- Honoring the confidentiality and privacy of other patients,
- Respecting the property of others,
- Reminding visitors to maintain a quiet atmosphere.

### PRIVACY

You or your family are responsible for giving items containing identifying information that you wish to be discarded, to your nurse, if you are concerned about the privacy of such information. The nurse will make sure these items are discarded in a manner to ensure confidentiality.

### PROVIDING INFORMATION

You are responsible to:

- Be honest about your health and provide accurate and complete information about present and past grievances, illness, hospitalizations, medications, allergies, and other matters relating to your health.
- Tell your doctor or nurse about unexpected changes in your condition or if you have questions or do not understand your plan of care and what is expected

of you in terms of participating in your care. Please do not be afraid or ashamed to tell us when you do not understand something.

- Inform your physician and other caregivers if you anticipate problems in following the prescribed treatment.
- Let your nurse and your family know if you feel you are receiving too many visitors or telephone calls.
- Notify the Patient Advocate Department if you have a complaint or grievance or feel your rights are being violated.

### HOSPITAL CHARGES

You are responsible for providing complete and accurate information for payment, including insurance claims.

Billing inquiries and questions can be addressed to the Billing Customer Service Representatives at Bayhealth Milford Memorial at 302-430-5782 or at Bayhealth Kent General at 302-744-7081.

### FOLLOWING INSTRUCTIONS

You are responsible for your actions if you refuse treatment or do not follow the instructions of physicians or other healthcare personnel. You are responsible for keeping appointments and for giving notice if unable to do so.

### RULES AND REGULATIONS

You are responsible for following hospital rules and regulations affecting patient care and conduct and acquainting yourself with the patient handbook and safety guide.

### PATIENT PROPERTY

You or your family are responsible for the safekeeping of valuable items not placed in the hospital safe. Patients are encouraged to leave or send valuables home.

### SMOKING

You are responsible for following and assuring that your visitors follow the no smoking policy and state law.













## Phone Numbers

DR. MILLS, DR. FATEHI, NEUROSURGERY OFFICE	302-526-1470
OLIVIA WASHINSKI, NURSE NAVIGATOR	302-632-6133
HOSPITAL INFORMATION	302-674-4700
ORTHO-SPINE UNIT/2B	302-744-6285
PRE-ADMISSION TESTING	302-744-7180
OUTPATIENT REGISTRATION	302-744-7235
DAY SURGERY	302-744-7100
PHYSICAL THERAPY	302-744-7095
INPATIENT REHABILITATION CENTER, MILFORD MEMORIAL	302-430-5347
HOME HEALTH	302-744-7300
GUEST RELATIONS	302-744-6640

## Directions to Bayhealth Kent General

### FROM PHILADELPHIA, PA:

Take I-95 S toward Int'l Airport, approximately 16.8 miles. Merge onto I-495 S toward the Port of Wilmington/Baltimore, 11.3 miles. I-495 South becomes I-95 South, 4.3 miles. Merge onto DE-1 South via exit 4A toward Christiana Mall Road (toll road). Merge onto US-13 south, and then continue onto DE-1 South, 34.8 miles. Take Exit 97 to merge onto Puncheon Run Con toward US 13. Turn right onto US-13 North. Take the first left onto S State Street. Go straight and Kent General will be on you left, Turn left into the main entrance.

### FROM BALTIMORE, MD:

Take I-95 North toward New York, turn right onto I-895 N, then merge onto I-95 N, 55.7 miles (partial toll road). Merge onto DE-1 South via exit 4A toward Christiana Mall Road. Merge onto US-13 south, and then continue onto DE-1 South, 34.8 miles. Take Exit 97 to merge onto Puncheon Run Con toward US 13. Turn right onto US-13 North. Take the first left onto S State Street. Go straight and Kent General will be on you left, Turn left into the main entrance.

### FROM WASHINGTON, DC:

Take US-50 E toward Annapolis, 45.3 miles. After crossing the Bay Bridge, continue on to US-301 N/Blue Star Memorial Highway, 18.2 miles. Turn right onto MD-302 E/Barclay Rd, 10.4 miles. Continue onto DE-11 N/Rd 47/Arthursville Rd. Turn right onto DE-44 E/Main St. Turn left onto DE-8/Halltown Rd, 6.7 miles. Turn right onto South State Street, Kent General Hospital will be on your right.