Back To Basics 2.0
Participant Guide
Table of Contents

Introduction .................................................................................................................................................. 3
Session 1: Take a Look Behind You........................................................................................................... 5
Session 2: How Can It Possibly Go Wrong?............................................................................................ 10
Session 3: Back for Life............................................................................................................................. 23
Session 4: We Have Your Back.................................................................................................................. 36
Introduction

Welcome and congratulations on your decision to make a positive change in your life.

The Back to Basics program was designed to help you achieve a higher level of wellness, including reducing your risk for injury and disability, improving your level of physical comfort, and living a healthier life. The Back to Basics program will give you the fundamentals of developing and maintaining a healthy back to help you enjoy life to the fullest.

Program components:

- Participant workbook
- Group sessions
- Activity guidance
- Additional resources
- Questionnaires (pre and post)

Due to the volume of information that is discussed in Back to Basics, it’s important to attend all group sessions in order to fully benefit from this program. Back to Basics offers the opportunity to learn, share, and develop healthy habits that will last a lifetime.

Ready to get started?

Committing to a healthy back can mean making some lifestyle changes. Some of these lifestyle changes may even be unexpected! Think about why you are ready for a healthy back. Are you prepared to recognize and nurture yourself as a whole being? Take some time to think about these questions and then answer them.

Why are you participating in this program? Do you have back pain or are you hoping to prevent back injury? Both?

What changes do you think you will need to make in order to have a healthy back?

How do you feel about making an ongoing time commitment to back health? How do you prioritize taking care of yourself?
What Do You Know About Back Health?

1. What’s the most common source of low back pain?
   - A problem with the spine
   - A problem with the muscles
   - A problem with the ligaments
   - A problem with the nerves

2. How many joints in the human body allow for the spine’s flexibility and range of motion?
   - 50
   - 75
   - Over 100

3. The human spinal column has how many ligaments?
   - 30
   - 100
   - 220

4. You are 1 centimeter taller in the morning.
   - True
   - False

5. Back injuries are the most common reason for missing work, after the common cold.
   - True
   - False

6. Which sleeping position is best for your back?
   - On your back
   - On your side
   - On your stomach

7. What is the number one cause of spinal cord trauma?
   - Car accidents
   - Overuse of the spine
   - Diving accidents
   - Injury while exercising

8. What % of people with low back pain will need surgery for a herniated disc?
   - Fewer than 2%
   - 2% - 5%
   - 15%
   - 20%

9. What is the best tool for diagnosing low back pain?
   - X-ray
   - MRI
   - CT Scan
   - None of the above

10. Americans spend at least $_____ each year on back pain?
    - $100 million
    - $50 billion
    - $500 million
    - $10 billion
Session 1: Take a Look Behind You

Low back pain is a common problem. About 60 to 80% of the adult U.S. population has low back pain, and it is the second most common reason people go to the doctor. Low back problems affect the spine’s flexibility, stability, and strength, which can cause pain, discomfort, and stiffness.

Back pain is the leading cause of disability in Americans under 45 years old. Each year 13 million people go to the doctor for chronic back pain. The condition leaves about 2.4 million Americans chronically disabled and another 2.4 million temporarily disabled.

(SOURCE UNIVERSITY OF MARYLAND MEDICAL CENTER, 2016)

That is a lot of people affected by back pain!

Your Spine

The spine (or backbone) runs from the base of the skull to the pelvis. It serves as a pillar to support the body’s weight and to protect the spinal cord. There are three natural curves in the spine that give it an "S" shape when viewed from the side. These curves help the spine withstand great amounts of stress by providing a more even distribution of body weight.
The spine is divided into three regions:

- **Cervical Spine** — The cervical spine (or neck) is the uppermost part of the spine. The seven vertebrae are numbered C1 to C7 from top to bottom. The first two vertebrae of the cervical spine are specialized to allow for neck movement. C1 sits between the skull and the rest of the spine. C2 (also called the axis) has a bony projection (odontoid process) that fits within a hole in C1 to allow rotation of the neck.

- **Thoracic spine** — There are 12 vertebrae (T1 to T12) in the chest section, called the thoracic spine. The ribs attach to the spine on the thoracic vertebrae.

- **Lumbar spine** — The lumbar spine (or lower back) usually consists of five vertebrae numbered L1 to L5. (Some people have six lumbar vertebrae.) The lumbar spine, which connects the thoracic spine and the pelvis, bears the bulk of the body's weight and are the largest vertebrae.

**Vertebral Structure**

The major function of the vertebral column is to protect the spinal cord. In humans, an additional function is to transmit body weight in walking and standing. Each *vertebra* has three main functional components: the *vertebral* body for load-bearing, the *vertebral* arch to protect the spinal cord, and transverse processes for ligament attachment.

- **Body** — The vertebral body is the front portion and the main weight-bearing structure of the vertebra.

- **Spinous process** — The spinous process is the posterior, or rear, portion of the vertebra. It is the bony ridge you can feel down your back.

- **Laminae** — Laminae are two small plates of bone that join in the back of the vertebra.

- **Pedicles** — Pedicles are short, thick bumps that project backward from the upper part of the vertebral body.

- **Transverse processes** — Transverse processes are the bony projections on either side of the vertebra where the laminae join the pedicles. Muscles and ligaments attach to the spine on the transverse processes.

- **Facet joints** — Facet joints are the spinal joints, the areas on the spine where one vertebra comes into contact with another.
How does your spine move?

Joints allow for movement, since bones themselves are too hard to bend without being damaged. Facet joints are the specialized joints that connect the vertebrae. The facet joints allow the vertebrae to move against each other, providing stability and flexibility. These joints allow us to twist, to bend forward and backward, and from side to side. Each vertebra has two sets of facet joints. One pair faces upward to connect with the vertebra above and the other pair faces downward to join with the vertebra below.

![Facet joint diagram]

**Intervertebral Discs**

Intervertebral discs are flat, round cushioning pads that sit between the vertebrae (inter means "between" or "within") and act as shock absorbers. Each intervertebral disc is made of very strong tissue, with a soft, gel-like center — called the nucleus pulposus — surrounded by a tough outer layer called the annulus. When a disc breaks or herniates (bulges), some of the soft nucleus pulposus seeps out through a tear in the annulus. This can result in pain when the nucleus pulposus puts pressure on nerves.

![Intervertebral disc diagram]

_A spinal disc is a little like a jelly donut, with a softer center encased within a tougher exterior._
**Nerves**

The spinal cord, the column of nerve fibers responsible for sending and receiving messages from the brain, runs through the spinal canal. It is through the spinal cord and its branching nerves that the brain influences the rest of the body, controlling movement and organ function.

As the spinal cord runs through the spinal canal, it branches off into 31 pairs of nerve roots, which then branch out into nerves that travel to the rest of the body. The nerve roots leave the spinal cord through openings called neural foramen, which are found between the vertebrae on both sides of the spine.

**Muscles**

There is a large and complex group of muscles that work together to support the spine, help hold the body upright and allow the trunk of the body to move, twist and bend in many directions.

**Extensor, Flexor and Oblique Muscles**

Three types of muscles that help the spine function are extensors, flexors and obliques.

- The **extensor muscles** are attached to the posterior (back) of the spine and enable standing and lifting objects. These muscles include the long columns of muscle along the spine in the lower back (erector spinae), which help hold up the spine, and gluteal muscles.

- The **flexor muscles** are attached to the anterior (front) of the spine (which includes the abdominal muscles) and enable flexing, bending forward, lifting, and arching the lower back.

- The **oblique muscles** are attached to the sides of the spine and help rotate the spine and maintain proper posture.

Strengthening these muscles helps to maintain proper posture and prevent back injury.
Did you know that all of that is going on behind you?

Now that you have a better understanding of how your back is built, think about how much your back does for you! Think about what you do for your back.

Name 3 things that you did not know prior to today but learned as a result of your participation in today’s session.

1. ____________________________________________________________________________

2. ____________________________________________________________________________

3. ____________________________________________________________________________

Name 3 things that you can do to improve your back health today.

1. ____________________________________________________________________________

2. ____________________________________________________________________________

3. ____________________________________________________________________________
Session 2: How Can It Possibly Go Wrong?

Angela is a 48 year old female who works in an office. She is fairly sedentary throughout her work day as she sits at a desk and performs data entry work for her employer. Angela doesn’t exercise during the week as she doesn’t have time in the morning and by the time she arrives home at the end of the day, she doesn’t have any energy. However, during the weekends, Angela is more active with household chores. Over the weekend, Angela cleaned up her garage and moved some heavy boxes for disposal. Angela gets out of bed on Monday morning and she feels a terrible pull in her lower back. The pain is sudden and sharp. Angela immediately suspects that she likely injured his back while moving the heavy boxes. She is due to be on job but she can’t move without experiencing pain.

How can it possibly go wrong? In the above scenario, Angela is not unlike some people. Can it happen to us?

What is back pain?

Back pain is an all-too-familiar problem that can range from a dull, constant ache to a sudden, sharp pain that leaves you incapacitated. It can come on suddenly—from an accident, a fall, or lifting something heavy—or it can develop slowly, perhaps as the result of age-related changes to the spine. Regardless of how back pain happens or how it feels, you know it when you have it.

Mechanical problems: A mechanical problem is a problem with the way your spine moves or the way you feel when you move your spine in certain ways. Perhaps the most common mechanical cause of back pain is a condition called intervertebral disk degeneration, which simply means that the disks located between the vertebrae of the spine are breaking down with age. As they deteriorate, they lose their cushioning ability. This problem can lead to pain if the back is stressed. Other mechanical causes of back pain include spasms, muscle tension, and ruptured disks, which are also called herniated disks.

Injuries: Spine injuries such as sprains and fractures can cause either short-lived or chronic pain. Sprains are tears in the ligaments that support the spine, and they can occur from twisting or lifting improperly. Fractured vertebrae are often the result of osteoporosis. Less commonly, back pain may be caused by more severe injuries that result from accidents or falls.

Acquired conditions and diseases: Many medical problems can cause or contribute to back pain. They include scoliosis, a curvature of the spine that does not usually cause pain until middle age; spondylolisthesis; various forms of arthritis, including osteoarthritis; and spinal stenosis, a narrowing of the spinal column that puts pressure on the spinal cord and nerves. Although osteoporosis itself is not painful, it can lead to painful fractures of the vertebrae.
Acute Back Pain

Acute back pain is intense and lasts from a few days to several weeks. Acute back pain usually gets better on its own and without treatment, although you may want to try acetaminophen, aspirin, or ibuprofen to help ease the pain. Perhaps the best advice is to go about your usual activities as much as you can with the assurance that the problem will clear up. Getting up and moving around can help ease stiffness, relieve pain, and have you back doing your regular activities sooner. *Exercises or surgery are not usually advisable for acute back pain.*

**Sprains and strains** account for most acute back pain. Sprains are caused by overstretching or tearing ligaments, and strains are tears in tendon or muscle. Both can occur from twisting or lifting something improperly, lifting something too heavy, or overstretching. Such movements may also trigger spasms in back muscles, which can also be painful.

**Remember our office worker Angela?**

Take a few minutes to think about Angela. There is a good chance that she used improper lifting techniques or over-exerted herself by attempting to lift more than she should on her own. On top of that, Angela isn’t taking care of her body and maintaining the strong muscles that are needed for good back health. What will Angela do now?

It can take several weeks to recover but with conservative care, she should eventually feel better.

Angela is inactive and not using good judgement. Angela still has years ahead of her but she is setting herself up for future problems if she doesn’t take care of herself.
Chronic Back Pain

Chronic pain lasts for longer than 3 months. Treatment for chronic back pain falls into two basic categories: the kind that requires an operation and the kind that does not. In the vast majority of cases, back pain does not require surgery.

<table>
<thead>
<tr>
<th>CHRONIC PAIN</th>
<th>Osteoarthritis, Degenerative Arthritis* - contributes to other problems</th>
<th>Degenerative Disc Disease* - contributes to other problems</th>
<th>Spinal Stenosis</th>
<th>Spondylolitishe “Slipped Vertebrae”</th>
<th>Herniated Ruptured “Slipped” Disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathology</td>
<td>Cartilage in joint loses elasticity, wears away &amp; creates bone on bone contact</td>
<td>Aging, wear and tear</td>
<td>Overgrowth of bone from osteoarthritis, slipped disc, thickened ligaments, rarely tumors</td>
<td>Vertebra slips forward and out of place</td>
<td>Injury or weakness causes inner portion to leak</td>
</tr>
<tr>
<td>Location of Pain</td>
<td>Felt in lower back</td>
<td>Felt in back</td>
<td>May be felt in both legs, esp. when walking. Low back pain, Pain in leg, thigh, buttocks.</td>
<td>Felt in hips, legs (tightness in hamstring muscle), and lower back. Tenderness in area of slipped disc. Pain in thigh and buttocks.</td>
<td>Depends on location of disc- Shoulder, neck, arm, and hand, pain down buttocks, thigh, and legs.</td>
</tr>
<tr>
<td>Quality of Pain</td>
<td>Ranges from mild to severe pain, aching/soreness</td>
<td>May be low level pain, can be sharp pain with flare-ups. May possibly have radiating numbness or weakness.</td>
<td>Numbness, tingling, hot or cold feelings in both legs.</td>
<td>Ranges from mild to severe pain. Numbness or weakness in one or both legs.</td>
<td>Numbness, tingling, pain, weakness.</td>
</tr>
<tr>
<td>Duration of Pain</td>
<td>Worse in morning and evening (after overuse or after long periods of inactivity).</td>
<td>May be felt in certain positions or movements, tends to come and go</td>
<td>May be relieved if you bend forward or sit, pain or numbness when walking</td>
<td>Worse if sitting or standing for prolonged period of time. Worse with bending or twisting.</td>
<td>Pain with movement, straining, coughing, during leg raises.</td>
</tr>
</tbody>
</table>

* If both conditions exist, it is called spondylosis of the spine
Osteoarthritis and Degenerative Disc Disease

Martin is a 66 year old male who retired last year. Martin thought he would be excited to retire but he has not been happy. Martin thought that he would feel better after his working days had ended but he struggles to take care of all of those home improvement projects he has always wanted to address but never had time to do. He has been dealing with diabetes for the last 20 years, a weight problem for the last 40 years, and he has been a smoker for 50 years. Martin takes medication to manage his pain but he rarely gets any relief.

OSTEOARTHRITIS OF SPINE

What is osteoarthritis of the spine?

Osteoarthritis of the spine is a form of degenerative arthritis. Osteoarthritis mostly affects cartilage, the hard but slippery tissue that covers the ends of bones where they meet to form a joint. Healthy cartilage allows bones to glide over one another. It also absorbs energy from the shock of physical movement. In osteoarthritis, the surface layer of cartilage breaks down and wears away. This allows bones under the cartilage to rub together, causing pain, swelling, and loss of motion of the joint. Over time, the joint may lose its normal shape. Also, small deposits of bone—called osteophytes or bone spurs—may grow on the edges of the joint. Bits of bone or cartilage can break off and float inside the joint space. This causes more pain and damage.

Who gets osteoarthritis?

Although osteoarthritis becomes more common with age, younger people can develop it, usually as the result of a joint injury, a joint malformation, or a genetic defect in joint cartilage. Both men and women have the disease. Before age 45, more men than women have osteoarthritis; after age 45, it is more common in women. It is also more likely to occur in people who are overweight and in those with jobs that stress particular joints.
What predisposes me to osteoarthritis?

There are a few things that are outside of our control. The risk for osteoarthritis increases with age and levels out at around age 75. Gender does come into play with women being at higher risk for osteoarthritis. Genetic predisposition and race also are factors (Asian populations have lower risk). Presence of diabetes is a strong predictor for severe osteoarthritis.

How can I prevent osteoarthritis?

The good news is that there are several modifiable risk factors when it comes to osteoarthritis.

- **Excess body mass** (especially applies to knee osteoarthritis)
- **Joint injury** (sports, work, trauma).
- **Occupation** (due to excessive mechanical stress: hard labor, heavy lifting, knee bending, repetitive motion).
- Men—often due to work that includes construction/mechanics, agriculture, blue collar laborers, and engineers.
- Women—often due to work that includes cleaning, construction, agriculture, and small business and retail.
- **Structural mal-alignment, muscle weakness.**
- **Control of diabetes**

Excess body mass is addressed with weight loss. Injury is avoided by utilizing proper equipment. Changing your job may not seem to be “modifiable”, but the way that you do your job may be more within your control than you think. Muscle weakness may be modifiable with exercise. Control over diabetes can be achieved by having a lifestyle that includes diet adherence and regular exercise.

What is Degenerative Disc Disease?

Degenerative disc disease is not really a disease but a term used to describe the normal changes in your spinal discs as you age.

As we age, our spinal discs break down, or degenerate, which may result in degenerative disc disease in some people. These age-related changes include:

- The loss of fluid in your discs (nucleus pulposus). This reduces the ability of the discs to act as shock absorbers and makes them less flexible. Loss of fluid also makes the disc thinner and narrows the distance between the vertebrae.
- Tiny tears or cracks in the outer layer (annulus) of the disc. The jellylike material inside the disc (nucleus) may be forced out through the tears or cracks in the capsule, which causes the disc to bulge, break open (rupture), or break into fragments.

Who gets Degenerative Disc Disease?

These changes are more likely to occur in people who smoke cigarettes and those who do heavy physical work (such as repeated heavy lifting). People who are obese are also more likely to have symptoms of degenerative disc disease.

A sudden (acute) injury leading to a herniated disc (such as a fall) may also begin the degeneration process. Degenerative disc disease can take place throughout the spine, but it most often occurs in the discs in the lower back (lumbar region) and the neck (cervical region).
How can I prevent Degenerative Disc Disease?

- Do not smoke.
- Limit alcohol
- Maintain a healthy weight
- Stay active
- Drink plenty of water
- Use assistive equipment, safe lifting techniques

Degenerative discs and osteoarthritis often occur hand in hand because the disc and facet joints (the joints in the back affected by osteoarthritis) are both part of the same three-joint complex. It is thought that degenerating discs can place undue stress on the facet joints, thus over time leading to degeneration and formation of osteoarthritis in the facet joints. This may be why the two degenerative conditions are so often seen together.

This condition is often called spondylitis. However, degenerative disc disease and osteoarthritis are different conditions and can occur separately: one can have degenerative discs without any facet osteoarthritis; or one can have facet osteoarthritis without degenerative discs.

Let’s talk about Martin

Do you remember Martin? Martin was looking forward to his free time but finds himself suffering from back pain. Martin could do a few things to feel better now but more importantly, Martin could have been doing a few kind things for himself a long time ago. Martin could have lost the excessive weight that likely led to his diabetes (osteoarthritis) and quit smoking (degenerative disc disease).

Ask Yourself These Questions

1. Do I ever take short cuts or neglect necessary steps in order to get through a task more quickly even though it is at the expense of my back health? If so, why?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. What can I modify in my life to prevent or delay osteoarthritis or degenerative disc disease?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Spinal Stenosis

Spinal stenosis is a narrowing of the open spaces within your spine, which can put pressure on your spinal cord and the nerves that travel through the spine. Spinal stenosis occurs most often in the lower back and the neck.

While spinal stenosis may cause no signs or symptoms in some people, other people may experience pain, tingling, numbness, muscle weakness, and problems with normal bladder or bowel function.

Spinal stenosis is most commonly caused by wear-and-tear changes in the spine related to osteoarthritis. In severe cases of spinal stenosis, doctors may recommend surgery to create additional space for the spinal cord or nerves.

While some people are born with a small spinal canal, most spinal stenosis occurs when something happens to reduce the amount of space available within the spine. Causes of spinal stenosis may include:

- **Overgrowth of bone.** Wear and tear damage from osteoarthritis on your spinal bones can prompt the formation of bone spurs, which can grow into the spinal canal. Paget's disease, a bone disease that usually affects adults, also can cause bone overgrowth in the spine.

- **Herniated disks.** Cracks in a disk's exterior may allow some of the soft inner material to escape and press on the spinal cord or nerves.

- **Thickened ligaments.** The tough cords that help hold the bones of your spine together can become stiff and thickened over time. These thickened ligaments can bulge into the spinal canal.

- Less frequently, **tumors and trauma** may cause spinal stenosis.

### Treatment of Spinal Stenosis

- **Medications:** For pain control and may range from NSAIDS, muscle relaxants (for muscle spasms), antidepressants (can ease chronic pain), anti-seizure drugs (can help pain from damaged nerves), possibly opioids

- **Therapy:** It's common for people who have spinal stenosis to become less active, in an effort to reduce pain. However, that can lead to muscle weakness, which can result in more pain.
• **Steroid injections:** Your nerve roots may become irritated and swollen at the spots where they are being pinched. Injecting a corticosteroid into the space around that constriction can help reduce the inflammation and relieve some of the pressure. However, steroid injections don’t work for everyone. And repeated steroid injections can weaken nearby bones and connective tissue, so only a few injections a year are suggested.

• **Surgery:** Surgery may be considered if more conservative treatments haven’t helped or if you’re disabled by your symptoms. The goal is to relieve the pressure on your spinal cord or nerve roots by creating more space within the spinal canal.

• **Laminectomy.** The procedure removes the back part (lamina) of the affected vertebra. In some cases, that vertebra may need to be linked to adjoining vertebrae with metal hardware and a bone graft (spinal fusion) to maintain the spine’s strength.

• **Laminotomy.** This procedure removes only a portion of the lamina, typically carving a hole just big enough to relieve the pressure in a particular spot.

• **Laminoplasty.** This procedure is performed only on the vertebrae in the neck. It opens up the space within the spinal canal by creating a hinge on the lamina. Metal hardware bridges the gap in the opened section of the spine.
Spondylolisthesis

Spondylolisthesis is a condition in which one vertebra slides forward over the vertebra below it. It most often occurs in the lower spine (lumbosacral area). In some cases, this may lead to your spinal cord or nerve roots being squeezed.

What causes spondylolisthesis?

Spondylolisthesis may be caused by any of a number of problems with the small joints in your back. You could have:

- A defective joint that you’ve had since birth (congenital).
- A joint damaged by an accident or other trauma.
- A vertebra with a stress fracture caused from overuse of the joint.
- A joint damaged by an infection or arthritis.

Who gets spondylolisthesis?

Spondylolisthesis affects children and teens involved in sports. Some sports, such as gymnastics or weight lifting, can overuse back bones to the point of causing stress fractures in vertebrae, which can result in spondylolisthesis.

Older adults can develop spondylolisthesis, because wear and tear on the back leads to stress fractures. It can also occur without stress fractures when the disc and joints are worn down and slip out of place.

What are the symptoms?

Symptoms of spondylolisthesis may include:

- Back or buttock pain.
- Pain that runs from the lower back down one or both legs.
- Numbness or weakness in one or both legs.
- Difficulty walking.
- Leg, back, or buttock pain that gets worse when you bend over or twist.
- Loss of bladder or bowel control, in rare cases.

Treatment of spondylolisthesis

Patients with symptomatic spondylolisthesis are initially offered conservative treatment consisting of activity modification, medications, and a physical therapy consultation. Degenerative spondylolisthesis with spinal stenosis is one of the most common indications for spine surgery (typically a laminectomy) among older adults.
Disc Herniation

Sally is a 70 year old female. She formally worked for a large chain grocer in their warehouse. Sally has never maintained a nutritious diet and she tends to consume inexpensive processed foods and sugary beverages. She is now overweight. She has chronic back pain of an indeterminable source (she hasn't seen a doctor in years) which is worse when she walks but feels a little better when she lies down.

Disc herniation is most often the result of a gradual, aging-related wear and tear called disc degeneration. As you age, your spinal discs lose some of their water content. That makes them less flexible and more prone to tearing or rupturing with even a minor strain or twist.

Sometimes called a slipped disc or a ruptured disc, a herniated disc occurs when some of the softer "jelly" pushes out through a crack in the tougher exterior.

A herniated disc can irritate nearby nerves and result in pain, numbness or weakness in an arm or leg. On the other hand, many people experience no symptoms from a herniated disc. Most people who have a herniated disc don't need surgery to correct the problem.

Most people can't pinpoint the exact cause of their herniated disc. Sometimes, using your back muscles instead of your leg and thigh muscles to lift large, heavy objects can lead to a herniated disc, as can twisting and turning while lifting. Rarely, a traumatic event such as a fall or a blow to the back can cause a herniated disc.

Who Gets a Herniated Disc?

- **Weight.** Excess body weight causes extra stress on the disks in your lower back.
- **Occupation.** People with physically demanding jobs have a greater risk of back problems. Repetitive lifting, pulling, pushing, bending sideways and twisting also may increase your risk of a herniated disk.
- **Genetics.** Some people inherit a predisposition to developing a herniated disc.
Treatments and Drugs

Conservative treatment — mainly avoiding painful positions and following a planned exercise and pain-medication regimen — relieves symptoms in 9 out of 10 people with a herniated disc.

- **Medications:** For pain control and may range from NSAIDS, muscle relaxants (for muscle spasms), antidepressants (can ease chronic nerve pain), possibly opioids

- **Therapy:** It’s common for people who have a herniated disc to become less active, in an effort to reduce pain. However, that can lead to muscle weakness, which can result in more pain.

- **Steroid injections:** Your nerve roots may become irritated and swollen at the spots where they are being pinched. Injecting a corticosteroid into the space around that constriction can help reduce the inflammation and relieve some of the pressure. However, steroid injections don’t work for everyone. And repeated steroid injections can weaken nearby bones and connective tissue, so only a few injections a year are suggested.

Surgery

A very small number of people with herniated discs eventually need surgery. Your doctor may suggest surgery if conservative treatments fail to improve your symptoms after six weeks, especially if you continue to experience: numbness or weakness, difficulty standing or walking, loss of bladder or bowel control.

In many cases, surgeons can remove just the protruding portion of the disc. Rarely, however, the entire disk must be removed. In these cases, the vertebrae may need to be fused together with metal hardware to provide spinal stability. Rarely, your surgeon may suggest the implantation of an artificial disc.

Bulging Disc

A bulging disc has not broken open. A bulging disc could be compared to a volcano prior to eruption and may be a precursor to herniation. The disc may protrude into the spinal canal without breaking open. The gel-like interior (nucleus pulposus) does not leak out.
Osteoporosis

Osteoporosis is a disease marked by reduced bone strength leading to an increased risk of fractures, or broken bones. Bone strength has two main features: bone mass (amount of bone) and bone quality. Osteoporosis is the major underlying cause of fractures in postmenopausal women and the elderly. Fractures occur most often in bones of the hip, spine, and wrist, but any bone can be affected. Some fractures can be permanently disabling, especially when they occur in the hip.

Osteoporosis is often called a “silent disease,” because it usually progresses without any symptoms until a fracture occurs or one or more vertebrae (bones in the spine) collapse. Bones affected by osteoporosis may become so fragile that fractures occur spontaneously or as the result of minor bumps, falls, or normal stresses and strains such as bending, lifting, or even coughing.

Who gets osteoporosis?

In the United States today, more than 53 million people either already have osteoporosis or are at high risk due to low bone mass. Osteoporosis can occur at any age, although the risk for developing the disease increases as you get older.

What predisposes me to osteoporosis?

Osteoporosis is most common in non-Hispanic white women, but the disease affects many older Americans of any race or sex.

Less than optimal bone growth during childhood and adolescence can result in a failure to reach optimal peak bone mass. Thus, peak bone mass attained early in life is an important factor affecting your risk of osteoporosis in later years.

A major contributor to bone loss in women during later life is the reduction in estrogen production that occurs with menopause. Estrogen is a sex hormone that plays a critical role in building and maintaining bone. Bone loss is most rapid in the first few years after menopause but continues into the postmenopausal years.

In men, sex hormone levels also decline after middle age, but the decline is more gradual. These declines probably also contribute to bone loss in men after around age 50.

Osteoporosis can also result from bone loss that may accompany a wide range of disease conditions, eating disorders, and certain medications and medical treatments. Other causes of osteoporosis include alcoholism, anorexia nervosa, abnormally low levels of sex hormones, hyperthyroidism, kidney disease, and certain gastrointestinal disorders. Sometimes osteoporosis results from a combination of causes.
What does osteoporosis have to do with my back?

A type of fracture in the spine that is typically caused by osteoporosis is generally referred to as a compression fracture. A compression fracture is usually defined as a vertebral bone in the spine that has decreased at least 15 to 20% in height due to fracture. The most common cause of osteoporosis pain is a spinal compression fracture. If you have been diagnosed with osteoporosis, or if you have several risk factors for osteoporosis, these symptoms may indicate a compression fracture:

- Sudden, severe back pain that gets worse when you are standing or walking
- Some pain relief when lying down
- Pain and difficulty in twisting or bending
- Loss of height
- Curvature of the spine

How can I prevent osteoporosis?

- Stay physically active.
- Do not smoke.
- Limit alcohol use.
- Get enough calcium and vitamin D in your diet.

Remember our friend Sally?

It is anyone’s guess as to why Sally is having sharp lower back pain. What we do know about Sally is that due to her lifestyle, she could have any number of conditions. Sally is overweight, had a physically demanding job, and does not eat nutritious foods. Sally could have a herniated disc or osteoporosis with a compression fracture. In a worst case scenario, Sally could suffer from both of those problems.

Think about Angela, Martin, and Sally. If some back problems are avoidable, why do so many people have them? Which back problems do you think you may be at risk for? Why? If you are at risk, which factors can you control?

Check off all of the risk factors that are within your control or can be partially within your control.

- Poor body mechanics
- Lack of assistive equipment
- Overweight
- Smoker
- Diabetes
- Core muscle weakness
- Hard physical labor
- Malnutrition
- Poor diet choices
- Low/poor hydration
- Congenital Defect
- Trauma/accident
- Aging
- Underlying disease
- Poor posture
Session 3: Back For Life

You have learned how your back is constructed and how things can possibly go wrong for your back. Hopefully you have a better idea of what your personal risk factors actually are for back problems. Now you may be wondering what can I do to not have back issues? The good news is that there are many ways to help your back!

Think about the way you treat your back. If you have risk factors for back problems, how many of those risk factors are actually lifestyle habits that you can change? List them below:

Did you think about the way you sit at your desk? The way you sleep? The shoes you like to wear? Or even the way that you handle stress? Some things can be very obvious such as smoking, body weight, and nutrition. Other things may not be as obvious but they still matter when it comes to back health.
Take a self-assessment and check off each best practice that you are using for good back health.

- **Carrying**... two small objects (one in either hand) may be easier to handle than one large one. If you must carry one large object, keep it close to your body.

- **Sleeping**... sleeping on your back puts 55 lbs. of pressure on your back. Putting a couple of pillows under your knees cuts the pressure in half. Lying on your side with a pillow between your knees also reduces the pressure.

- **Weight Control**... additional weight puts a strain on your back. Keep within 10 lbs. of your ideal weight for a healthier back.

- **Quit Smoking**... smokers are more prone to back pain than nonsmokers because nicotine restricts the flow of blood to the discs that cushion your vertebrae.

- **Hydration**... drinking ½ ounce of water per pound of body weight keeps those discs hydrated.

- **Diet**... consuming a diet that is high in vegetables and fruits, lean proteins, and healthy fats reduces inflammation in the body.

- **Stress Management**... With chronic stress, muscles are in a constant state of guardedness. If muscles are tense and taut for long periods of time, not only can you have low back pain but also have tension headaches or migraines.

- **Minor Back Pain**... treat minor back pain with anti-inflammatories and gentle stretching, followed by an ice pack.
What can I do at work and home to strengthen my back and alleviate or prevent back pain?

Forget about the standing station, adjust your seat properly! We adjust our car seats, but why don’t we change our work chair?

1) Tuck your bottom back in the seat, top of chair should be touching shoulders
2) Keep your shoulders directly above your hips
3) Keep 2-3 fingers width between the back of your knee and the chair
4) Knees should be equal to or higher than the hips
5) Feet should be flat on the ground or supported by something
6) Relaxed shoulders, and keep arms at 90 angle to the keyboard
7) Screens should be at eye level, minimizing neck rotation

TIP: When you find yourself leaning or slouching, get up and move around briefly to re-energize yourself. Keep anything you use often (i.e.-phone) within arm’s reach. Use the levers on the chair to get an ideal fit.

Sitting too long? Try to Deskercise for at least 5 minutes, 2 times a day

Images courtesy of www.diygenius.com/deskercise/
To prevent back pain, learn to lift and bend properly. Follow these tips:

### Lift Smart:
#### 6 Steps to Protect Your Back

1. **Position Yourself**
   Place your feet shoulder-width apart. If you can straddle the object, all the better.

2. **Get Set**
   Tighten your stomach muscles — and bend at the knees, not the waist.

3. **Check Your Grip**
   Get a firm hold on the object. If there’s a way to attach or use handles, do that.

4. **Take It Slow**
   Straighten your legs to lift gradually, keeping your back straight. Use your leg muscles, not your back.

5. **Keep It Close**
   Hold the object next to your body — in the space between your shoulders and waist, if possible.

6. **Don’t Twist**
   To change direction, turn your feet first. Then pivot your body to line up.

### Active Stretching and Muscle Strengthening

When you stretch, include your stomach and leg muscles. These help to support the spine and relieve back pain.

**Remember:** If you spend your day sitting, perform your stretches standing if possible. If you spend your day standing, then plan to stretch on the floor. If you’re too weak and need support for the stretches, plan to start doing all stretches on the floor or in a chair.

**Avoid:** Toe touches, sit ups, leg lifts and anything involving standing if you’re too weak.

1) Cat and Camel  
2) Hamstring Stretch  
3) Wall Sit  
4) Back Extension  
5) Bird Dog/Arm and Leg Raise  
6) Knee to Chest  
7) Aerobic Activity—Swim, bike, run, etc.  
8) Lifting Weights with MD’s permission

There are many different kinds of back conditions. Not all stretches and exercises are appropriate for yours. Always check with your doctor.
Stretches and Exercises

When you stretch, include your stomach and leg muscles. These help to support the spine and relieve back pain.

90/90 Stretch

*Image courtesy wikiHow.com, from the article “How to Do a 90/90 Hip Stretch”*

- Sit with your right knee bent at 90-degrees in front of you, calf perpendicular to your body and the sole of your foot facing to the left. Keep your right foot flexed.
- Let your leg rest flat on the floor.
- Place your left knee to the left of your body, and bend the knee so that your foot faces behind you. Keep your left foot flexed.
- Keep your right butt cheek on the floor. Try to move the left cheek as close to the floor as possible. It may not be possible if you’re super tight.
- Hold for 30 seconds to 2 minutes.
- Repeat on the other side.

Knee to Chest Stretch

- Lie on your back with both legs extended.
- Pull your right knee into your chest, while keeping the left leg straight and your lower back pressed into the floor.
- Hold for 30 seconds to 2 minutes.
- Repeat on the other leg.

Bird Dog

Before beginning, make sure the hands are directly under the shoulders and the knees under the hips, and you’re looking slightly down and ahead of you (as in the photo). Pull the belly button up toward the ceiling, and raise opposite leg and arm. Imagine lengthening your body and reaching the leg behind you and the fingertips ahead. It is imperative the height of both stay below the hip and shoulder and to keep your hips parallel to the floor. Watch out for the hip of the extended leg rolling open. Make sure to self-correct. Lower both at the same time and repeat on the other side. Do 2 sets of 15.

Hip Bridge

Engage your core by pulling your belly button into the floor and lifting your hips up to the ceiling. The goal is to reach the point where your shoulders, hips and knees are aligned in one straight line. Make sure as you press up and hold, you push through your heels. If you find yourself pressing through the toes or the ball of your feet, shift back.
Cat/Cow Stretch

- Begin with your hands and knees on the floor. Make sure your knees are under your hips, and your wrists are under your shoulders. Begin in a neutral spine position, with your back flat and your abs engaged. Take a big deep inhale.
- On the exhale, round your spine up towards the ceiling, and imagine you’re pulling your belly button up towards your spine, really engaging your abs. Tuck your chin towards your chest, and let your neck release. This is your cat-like shape.
- On your inhale, arch your back, let your belly relax and go loose. Lift your head and tailbone up towards the sky — without putting any unnecessary pressure on your neck. This is the Cow portion of the pose.
- Continue flowing back and forth from Cat Pose to Cow Pose, and connect your breath to each movement — inhale for Cow Pose and exhale on Cat Pose.
- Repeat for at least 10 rounds, or until your spine is warmed up.

Standing Twist (not pictured)

- Use a broom or any long object and place over the shoulder.
- Pull in your belly button to engage the core
- In a controlled motion, rotate to one side and then the other. If the twisting causes pain, do not do it, or simply modify the range of motion
Is Your Sleep Position Causing You Back Pain?

We don’t often think about our spines when we’re lying in bed. But our sleep posture can help determine whether or not we experience back pain. People gravitate toward sleeping positions that feel best to them.

Keep your spine in a neutral position

Choose a well-made innerspring or foam mattress, or add a foam mattress topper to your innerspring mattress for additional support. You can also alter your sleep position or use pillows to keep your spine neutral. The condition of your mattress can dictate your sleeping position so if your mattress is sagging in the middle, consider replacing it.

Alternate sides if you’re a side sleeper

Some evidence suggests that habitually sleeping on one side on an ill-fitting mattress may contribute to muscle imbalance and pain. Always sleeping on the same side suspends the middle of your body between your hips and shoulders, the broadest parts of the trunk. Place a pillow between your knees as shown below to keep hips, pelvis and spine aligned. When you sleep on your side, notice how hip alignment changes with and without a pillow between your knees.

Use a pillow

Whichever sleep position you choose, position your pillow beneath your head and neck, and not your shoulders. If you sleep on your back, make sure the pillow fills the space between your neck and the mattress to maintain your head in neutral position, as illustrated below. If you sleep on your side, use a thicker pillow, also shown below.

Your body type dictates the type of support you need

If your hips are wider than your waist, a softer mattress can accommodate the width of your pelvis and allow your spine to remain neutral, as shown below. If your hips and waist are in a relatively straight line, a more rigid surface offers better support.

Sleeping on a rigid surface (top) versus a softer surface (bottom) affects the position of the pelvis and lower spine.
What about mattresses?

A wide selection of sleep surfaces with varying levels of firmness and support are available at a broad range of prices. No benchmark standards presently exist for recommending bedding systems, whether for the purpose of alleviating pain-related sleep disturbance or for the purpose of enhancing sleep quality. It has been estimated that more than 80% of the American public sleep on innerspring mattresses.

It should be noted that many sleep and back health studies use a medium-firm innerspring mattress as the experimental bedding system.

Although mattresses and bedding surfaces are accompanied by extended warranties, the life of the support, structure, and comfort of the mattress as it relates to sleep quality may be variable.
Nutrition for Back Health

When people think about ways to manage back pain, nutrition is not the first thing that comes to mind. But what you eat impacts your back health. Nourishing your body with foods that reduce inflammation can really help you feel better much sooner.

Stop Fanning the Flames

Much of our pain comes from inflammation. Inflammation is one of your body’s defense mechanisms to protect from infection and foreign substances. However, sometimes the protective response becomes chronic and, for one reason or another, is triggered when there are no infections to fight off. For example, foods high in saturated fats, trans-fats, simple sugars and white flour actually trigger inflammation throughout our bodies through a complex series of biochemical and hormonal processes. Left unchecked, inflammation runs rampant through your body, causing all kinds of problems — including arthritis and low back pain.

Your first line of defense is to reduce the number of pro-inflammatory foods you eat, which means cutting back significantly on:

- Red meat
- Highly processed foods and foods with added sugars (and very little nutrients)
- White bread, white pasta, white rice
- Whole-fat dairy
- Sugary drinks and snacks
- Fried foods
- Anything with “partially hydrogenated oil” in the ingredients

Go Mediterranean

While cutting down on inflammation-causing foods, you'll want to increase your intake of anti-inflammatory foods. The best way to do this is to follow the Mediterranean diet, which focuses on eating antioxidant-rich foods, lean protein, whole grains and heart-healthy fat.
**Keep Your Back Bones Strong**

Your bones start losing mass once you hit your twenties, which can really weaken the vertebrae in your spine. Excessive weakness and brittleness is known as osteoporosis. Banking enough calcium early in life helps prevent osteoporosis. But even later in life, calcium can help you maintain bone mass.

Women should get 1,200 to 1,500 mg of calcium a day. Men need 800 to 1,000 mg. Good choices: calcium-fortified foods, including fat-free milk and dairy, calcium-fortified orange juice, whole-grain breads and soy milk. Remember that you can absorb only about 600 mg of calcium at one time, so only take that much at once and always take with vitamin D which is needed for optimal absorption.

**It’s all in the timing**

We already know certain foods such as those high in sodium, alcohol, and soda are bad for our health. Here’s one more reason to avoid them—they flush calcium from the body

- **Caffeine**: If you consume caffeine, be sure to allow enough time after your calcium intake. So, if you eat a calcium rich yogurt, that cup of coffee or caffeinated tea should wait.
- **Alcohol**
- **Soda** is also a big culprit. The phosphorus in soda reduces calcium absorption.
- Foods high in **sodium**

<table>
<thead>
<tr>
<th>Calcium Rich Foods</th>
<th>Vitamin D Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy: cheese in moderation, yogurt, milk</td>
<td>Dairy: cheese</td>
</tr>
<tr>
<td>Dark leafy greens: spinach, kale, turnips, collard greens</td>
<td>Egg yolks, mushrooms</td>
</tr>
<tr>
<td>Sardines</td>
<td>Fatty fish: tuna, mackerel, salmon, swordfish, cod; liver, beef</td>
</tr>
<tr>
<td>Fortified foods: orange juice, cereals, whole grain breads</td>
<td>Fortified foods: orange juice, dairy, cereals, whole grain breads, milk, yogurt</td>
</tr>
</tbody>
</table>

The majority of Americans do not have optimal levels of vitamin D. We get vitamin D from animal sources such as fatty fish (salmon, sardines) and plants, and from synthesis in the skin related to sun exposure (UVB radiation). Some researchers have suggested we get 5 – 30 minutes of sun exposure between 10 a.m.-3 p.m. every day to boost intake.
Drink Up

Proper hydration is key for every single process our body performs — from digesting food to fighting off disease. Dehydration creates a whole bunch of problems, from fatigue to headaches. But there is also a back connection. As you will recall, the bones of your spine (your vertebrae) have discs between them. These discs are partly made up of a jelly-like substance, which is 90 percent water. Downing glass after glass of water can’t stave off all disc problems. However, making sure your body has a steady stream of fluid coming in may help keep that cushioning intact.

If you find plain water boring, try some new ideas. Dress up your water glass with fresh fruit and/or herbs. Mint, sage, and basil offer a different twist when paired with fresh fruit. Try keeping a carafe or pitcher in your refrigerator that is ready to go with some delicious flavored water.

Basil and Lemon Water
- 1 tablespoon fresh basil (or thyme) leaves
- 1 teaspoon lemon zest
- 1 cup flat water
- 1 lemon wedge (about 1/8 of a lemon)
1. Place basil and lemon zest in a glass.
2. Add water and stir thoroughly.
3. Add ice and finish with a squeeze of lemon.

Mint Water with Lime
- 1 tablespoon fresh mint leaves
- 1 lime wedge (about 1/8 of a lime)
- 1 cup flat water
1. Place mint in a glass and add a couple teaspoons of the water. Mash mint with the back of a long spoon to heighten flavor.
2. Squeeze lime into glass and fill with remaining water.
3. Add ice and serve.

Besides adding some pizzazz to your water pitcher, here are a few more tips:
- Ladies should drink 90 ounces and men should drink 120 ounces of water every day.
- Start your morning with a glass of water.
- Drink a glass of water after every bathroom break.
- Sip a glass of water before every meal.
- Use an app to track your cups.
- Dilute sugary drinks with water and ice (aim for a 1:1 ratio with water and add lots of ice).
- Choose sparkling or mineral water over soda.
- Eat water-rich foods (zucchini, watermelon, cucumber, grapefruit, etc.).
Stress and Back Pain

Stress is what you feel when you have too much to handle. You may have too much work to do, or you may be having trouble with children or a spouse. If stress happens too often or lasts too long, it can affect your health.

We all "hold" stress in different ways. Some people hold stress in their minds. They may worry so much about a problem that they can't think clearly. But, if you hold stress in your body, it can affect your back. You may begin to tense your back muscles, which can trigger low back pain or make it worse. With sudden onset stress, muscle tension releases when stress passes. With chronic stress, muscles are in a constant state of guardedness. If muscles are tense and taut for long periods of time, not only can you have low back pain but also have tension headaches or migraines.

Can you avoid stress?

You'll always have some stress in your life, but you can try to prevent situations that cause stress and change how stress affects you.

Time management

When you don't have enough time, things pile up and stress mounts. Try these tips for managing your time:

- Focus on what you are doing. Don't juggle too many tasks at one time. Break large projects into smaller ones.
- Don't try to do everything yourself. Ask others to help you.
- Rate your tasks by how important and urgent they are. Spend your time doing things that rate high on the list.
- Make time for yourself. Plan your day so that you have time for something you want to do.
- Don't put things off. Use the 3 Ds: Deal with it, delegate it, or dump it.

Lifestyle

Some behaviors and lifestyle choices can help your body bounce back from stress.

- Get enough sleep. Your body recovers from stress while you are sleeping.
- Eat healthy foods. And when you eat, sit down and relax. Avoid too much caffeine.
- Be active every day. Go for walks, work in the garden, or play with your kids.
- Don’t smoke.

Interacting with others

If you have a lot of stress, tell people about it and ask for help. Look for support from:

- Family members and friends.
- People at work or school and people who share your interests.
- Members or leaders of your church or religious group.
- Support groups that focus on special situations, such as giving care to someone who has a long term illness.
- Programs offered through your school, job or community. These could include stress management or time management courses.
Depression and Back Pain

Pain and depression are closely related. Sometimes pain and depression create a vicious cycle in which pain worsens symptoms of depression, and then the resulting depression worsens feelings of pain.

In many people, depression causes unexplained physical symptoms such as back pain or headaches. This kind of pain may be the first or the only sign of depression. Chronic pain causes a number of problems that can lead to depression, such as trouble sleeping and stress. Depression doesn't just occur with pain resulting from an injury. It's also common in people who have pain linked to a health condition such as diabetes or heart disease.

The U.S. Preventive Services Task Force recommends screening for depression in all adults (18 and older) regardless of risk factors.

However, a number of factors are associated with an increased risk of depression. Among general adult populations, prevalence rates vary by sex, age, race/ethnicity, education, marital status, geographic location, and employment status. Other populations with higher rates of depression include:

- Women
- Young and middle-aged adults
- Non-Caucasians
- Under-educated
- Previously married
- Unemployed
- People with chronic illnesses (example: cancer or cardiovascular disease), other mental health disorders (including substance misuse), or a family history of psychiatric disorders.
Now you have learned about your back, what can go wrong with your back, and how to take care of your back. But who do you turn to? There are many resources available to you, both in sickness and in health. Some of these resources are even provided at no cost to you!

**When Should I See a Doctor for Pain?**

In most cases, it is not necessary to see a doctor for back pain because pain usually goes away with or without treatment. However, a trip to the doctor is probably a good idea if you have numbness or tingling, if your pain is severe and doesn’t improve with medications and rest, or if you have pain after a fall or an injury. It is also important to see your doctor if you have pain along with any of the following problems: trouble urinating; weakness, pain, or numbness in your legs; fever; or unintentional weight loss. Such symptoms could signal a serious problem that requires more immediate treatment.

**Health Care Practitioners**

**Primary Care Physician**

Start with your primary-care physician; back pain is so common that most family docs have seen lots of it. Your PCP can determine if you need to see a specialist. Your PCP is also a good person to return to if, later, you get conflicting treatment advice from specialists. He or she can help you evaluate what would be your best next step.

*What happens when you see your PCP?*

After discussing your symptoms and medical history, your doctor will examine your back. This will include looking at your back and pushing on different areas to see if it hurts. Your doctor may have you bend forward, backward, and side to side to look for limitations or pain.

Your doctor may measure the nerve function in your legs. This includes checking your reflexes at your knees and ankles, as well as strength testing and sensation testing. This might tell your doctor if the nerves are seriously affected.

Additionally, there are other causes of back pain that may need to be excluded including conditions such as:

- Asthma
- Kidney stones or infection
- Heart Disease

*What kinds of tests might be ordered?*

Other tests which may help your doctor confirm your diagnosis include:

**X-rays.** Although they only visualize bones, simple X-rays can help determine if you have the most obvious causes of back pain. It will show broken bones, aging changes, curves, or deformities. X-rays do not show disks, muscles, or nerves.

**Magnetic resonance imaging (MRI).** This study can create better images of soft tissues, such as muscles, nerves, and spinal disks. Conditions such as a herniated disk or an infection are more visible in an MRI scan.

**Bone scan.** A bone scan may be suggested if your doctor needs more information to evaluate your pain and to make sure that the pain is not from a rare problem like cancer or infection.

**Computerized axial tomography (CAT or CT) scans.** If your doctor suspects a bone problem, he or she may suggest a CAT scan. This study is like a three-dimensional X-ray and focuses on the bones.
Bone density test. If osteoporosis is a concern, your doctor may order a bone density test. Osteoporosis weakens bone and makes it more likely to break. Osteoporosis by itself should not cause back pain, but spinal fractures due to osteoporosis can.

Physiatrists (physical medicine and rehabilitation doctors)

A physiatrist is a medical doctor who specializes in the rehabilitation and physiological treatment of patients with an illness or injury which affects movement.

These specialists have extensive knowledge of the nerves, muscles, bone, and brain. Physiatrists are also experts in pain medication.

Some common conditions that physiatrists treat are rheumatoid arthritis, neurological and spinal disorders and injuries, chronic pain disorders, like fibromyalgia, and musculoskeletal issues, like broken bones and torn muscles.

These physicians also often coordinate a team of other specialists in order to maximize the patient's recovery, such as occupational therapists, speech therapists, neurologists, orthopedists, and counselors.

Physiatrists offer nonsurgical approaches to rehab and pain relief — probably the best thing to try first. Some utilize spinal injections, nerve blocks, and other interventional techniques, and may have taken special fellowship training in these procedures — a plus. Anesthesiologists (at spine centers or in private practice) are increasingly involved in managing back pain with injections and medications.

Physiatrists often have broad practices, but some concentrate on one area such as pediatrics, sports medicine, geriatric medicine, or brain injury. With just 8,000 board-certified physiatrists around the country, they tend to be clustered in big cities, and many people have not heard of this specialty.

A Few Words About Contrast Material

In certain cases, your doctor may recommend you receive a special dye called a contrast material through a vein in your arm before your CT scan or MRI. Although rare, the contrast material can cause medical problems or allergic reactions.

Most reactions are mild and result in a rash or itchiness. In rare instances, an allergic reaction can be serious, even life-threatening. Tell your doctor if you've ever had a reaction to contrast material.

Certain medications may not be compatible with IV contrast, for example, metformin. It is very important to inform healthcare providers of all medications you are taking beforehand.
Physical Therapists

Physical Therapists offer passive modalities such as heat, ice, massage, ultrasound, and electrical stimulation. Active therapy consists of stretching, weight lifting, and cardiovascular exercises. Exercising to restore motion and strength to your lower back can be very helpful in relieving pain.

Chiropractors

Chiropractors care for patients with health problems of the neuromusculoskeletal system, which includes nerves, bones, muscles, ligaments, and tendons. They analyze the patient’s posture, spine, and reflexes, conduct tests, including evaluating a patient’s posture and taking x rays.

Chiropractors provide neuromusculoskeletal therapy, which involves adjusting a patient’s spinal column and other joints by hand. They may also give additional treatments, such as applying heat or cold to a patient’s injured areas, use spinal adjustments and manipulation, and other techniques to manage patients’ health concerns, such as back and neck pain.

Orthopedic Physician

Orthopedic physicians treat spines. In general chronic pain, rheumatic diseases, musculoskeletal injuries and arthritis all are part of orthopedics. Inside the big umbrella of orthopedics there are a number of back related specialties including:

- Arthritis and osteoarthritis
- Injury care including fractures
- Rheumatology
- Pain management
- Sports medicine
- Back & Spine Surgery
- Physical and Occupational Therapy

Conservative Care

Conservative management is an approach to treating back pain, neck pain and related spinal conditions utilizing non-surgical treatment options, such as physical therapy, medication and injections.

In the context of treating back pain, “conservative” treatment is not the inverse of aggressive treatment. Most episodes of back pain can be treated through a combination of several conservative treatments.

If a condition requires emergency care, conservative management may be passed up for surgical intervention. In general, surgery for lower back pain is considered only if conservative treatments fail and the pain persists for an extended period of time and limits the individual’s ability to function.
Healthy Back/Orthopedic Health Support

Healthy Back is for low acute back pain (without a specific diagnosis) or chronic low back pain which may include: muscle and ligament sprains, spondylosis, spondylolisthesis, osteoarthritis, any disc diagnosis, spinal stenosis, sciatica, annular tears, osteoporosis. A health coach and an online program are provided.

- Take steps to manage your pain
- Explore your treatment options
- Find the best care available for your specific condition

Decision Support

When considering surgery you will be referred to a Treatment Decision Support coach. The nurse will confirm basic demographic information and then ask more screening questions to further determine your specific coaching needs. The nurse may discuss:

- Evidence-based treatment guidelines and the associated risks, benefits and outcomes of different treatment options and preventive strategies
- Surgical options
- Provider-specific quality data that can help guide the selection of clinicians who have been recognized for providing quality and cost-efficient care to patients
- Admission counseling
- Discharge planning
- Questions to ask the doctor

Disease Management

United Healthcare has disease management programs that include conditions that may impact back health including:

- Diabetes Mellitus (Type 1 & Type 2).
- Asthma
- COPD

Wellness Coaching (includes Tobacco Cessation, Weight Management, Diabetes Lifestyle: Diabetic & Pre-Diabetic, Exercise, Nutrition, and Stress Management)

Wellness programs provide a personal wellness coach who will help you tackle your wellness concerns. Your personal wellness coach may:

- Tailor a personalized plan, over a series of phone calls, emails or chat to help you stay motivated to achieve your goals.
- Help you learn how to make permanent lifestyle changes.

Other UHC Resources

MyUHC.com

This site provides not only cost estimator services but also physician locator services. You can search for a Tier 1 physician by specialty.
Rally

Rally is a website and app found on myuhc.com that offers personalized recommendations to help you move more, eat better, and feel great. One key to better health is forming positive habits by making small changes to your daily routine. Rally recommends customized Missions, which are simple activities to help improve your diet, fitness, and mood every day. As you make progress, you'll earn Rally Coins, good for a chance to win rewards. Rack up coins for participating in Missions, pushing yourself in a Challenge, and even just for logging in every day!

Real Appeal

Real Appeal is a 52 week lifestyle management option for PCG employees and spouses who are UHC members. Real Appeal is a brand-new way to lose weight, have more energy and look better than ever. We’ll help you make small changes—changes you can easily live with—for lasting weight loss. And, as a 100% paid-for healthcare benefit, Real Appeal is available at absolutely NO COST to those who qualify.

Advocate4Me

Advocate4Me is a customer care approach that provides UnitedHealthcare’s members with a single point of contact to address their various health needs. By calling a single toll-free number, or using their preferred communication channel, members are connected with an Advocate who provides them with end-to-end support, “owning” their request until it’s resolved. This approach results in a simpler, more personalized and informed experience for the member.

Advocates can tap into a team of experts specializing in clinical care, emotional health, pharmacy, health care costs and medical plan benefits — to help each consumer navigate the health system and get the information he or she needs.

United At Work Seminars

United Healthcare offers many seminars for your workgroup. You can learn about the Mediterranean diet, Office Ergonomics, Diabetes, Stress Management, and other topics that are good for your back health.
Pinellas County Wellness Program

Smoking Cessation

Tobacco Free Florida offers free tools and services to help you get started. Additionally, they offer on-site 6 week programs based on level of interest.

Wellness Center

The center is a free benefit to all permanent County employees, retirees, and registered County volunteers. Located in the basement of the old Courthouse at 324 S. Ft. Harrison Avenue in downtown Clearwater. Open Monday through Friday, 5:00 a.m. - 8:00 p.m. Closed on weekends and all County holidays. Access is issued after attending an orientation class and completing paperwork. Fitness classes are available.

YouDecide discounts include discounts to gyms in area

Discounts to various gyms in the Tampa Bay area, including Planet Fitness, the YMCA, Crunch, 9 Round Boxing, Golds, 24 HR Fitness, LA Fitness, Snap, YouFit, and others.

Blood pressure checks

Offered throughout the year.

Track This!

Track your exercise and keep a food diary throughout the year.

Conclusion

Now you have an understanding of how your back works, how your back can be injured, what you can do to have better back health, and the resources that are available to you.

Can you name 3 things that you will try to incorporate into a plan for better back health?

1. ________________________________________________________________
2. ________________________________________________________________
3. ________________________________________________________________