Exploring minimally invasive techniques for neck and back pain
Back and neck pain

What causes back and neck pain?
Back and neck pain can be as severe as a damage spinal disc or as innocuous as a pulled muscle. Some conditions are common in aging adults, while others may be caused or worsened by injury.

When should I see a doctor?
It can be difficult to determine when neck or back pain requires medical attention. Generally, you should see a doctor if your pain:

– Persists after more than a week of home treatment
– Spreads to other areas of your body, such as your arms and legs
– Is constant and/or intense and hurts when lying down
– Causes numbness, headaches, weakness or tingling
– Was caused by an accident or traumatic injury

Some causes of neck and back pain may require surgery, and in many cases, minimally invasive techniques can take the place of traditional surgery.
How can I relieve neck pain at home?
If your neck pain isn’t severe or long-lasting enough to warrant a doctor’s visit, try these stretches at home:

**Gentle neck muscle contractions:**
Try these exercises once a day, five times each. Use only half of your full strength to ensure pain-free motion. If you experience pain, stop.

1. **Extension**
   Place your palm against the back of your head. Push the back of your head into your palm, but don’t bend your neck. Hold the position for six to eight seconds.

2. **Flexion**
   Place your palm against your forehead. Push your forehead into your palm, but don’t bend your neck.

3. **Side bend**
   Place your right palm against the side of your head. Push into your palm, but don’t bend your neck. Repeat on the left side.

4. **Rotation**
   Place your right palm against the side of your head. Push your head into your palm. Try to rotate your head to the right without turning your neck.
How can I relieve and prevent back pain in my day-to-day life?
To prevent back pain and keep existing pain from getting worse, it’s important to maintain good posture. Try these tips to see if poor posture is causing or worsening your discomfort:

1. Adjust your desk, chair and computer so the monitor is at eye level. Your knees should be slightly lower than your hips. Use your chair’s armrests. Don’t slump.

2. Avoid carrying heavy bags with straps over your shoulders as the weight can strain your neck. Instead, balance your armload by distributing the weight equally.

3. Avoid tucking the phone between your ear and shoulder when you talk. Use a headset or speakerphone instead.

4. Traveling in a car, airplane or train? Place a small pillow or rolled towel between your neck and a headrest to keep the normal curve in your neck.

5. Sleep on a pillow and mattress that provide spinal support and keep your neck in line with your upper back. Keep a small pillow under your neck. Try sleeping on your back with your thighs elevated, which will flatten your spinal muscles.

6. Stay alert to unnecessary pressure against your head throughout the day – even simple actions like leaning into your hand.

7. Take breaks. If you travel long distances or work long hours at your computer, get up, move around and stretch your neck and shoulders.
Minimally invasive spinal surgery

What is minimally invasive spine surgery?
Traditional spine surgery requires long incisions at the site of the operation in order to cut and move large swaths of muscle away from the spine. These incisions can occasionally result in a slow and/or painful recovery and, in extreme cases, damage to these muscles.

Minimally invasive spine surgery is a fairly new option that mitigates the risk for long-lasting damage, reduces post-surgery pain and shortens recovery time. Through smaller incisions, surgeons use microscopes and other special instruments to operate while cutting as little muscle as possible.

Am I a candidate for minimally invasive spine surgery?
Your doctor will decide what type of surgery, if any, is appropriate for your condition. While many conditions can now be treated with minimally invasive techniques, there are some that still require standard open surgery, such as high-degree scoliosis, tumors and some infections.

Common types of minimally invasive surgery
Minimally invasive spine surgery is often a great solution to back pain. Common types of minimally invasive surgery include, but are not limited to, spinal decompression, spinal fusion (also known as spondylosyndesis) and anterior cervical discectomy and fusion (ACDF).

Spinal decompression helps relieve pressure on the spinal cord by removing bone and/or disc material that are pressing on the spine’s nerve roots.

Spinal fusion uses implants to join two or more vertebral bones to stabilize the spine, keep the bones in place and prevent painful friction. Spinal fusion is commonly performed alongside spinal decompression.

Anterior cervical discectomy and fusion removes cervical discs affected by degenerative disc disease (DDD) from the spine. In ACDF, the surgeon removes the affected discs and uses a bone graft or implant to fuse the vertebral bones remaining around the gap.
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