remedial biology
The spine isn’t a single entity; it’s a dynamic, complex system. A stack of 25 intricately shaped bones, called vertebrae, form the spinal column, a long, hollow tube. Safely ensconced inside it is the spinal cord, an extension of the brain made up of millions of nerve cells. Between the vertebrae are gel-filled disks, which absorb pressure and keep the vertebrae from rubbing against one another. Ligaments tether each vertebra to the ones adjacent to it, forming a network of joints, and tendons connect to the surrounding muscles. With so many components, a lot can go wrong. When it does, the pain may seem to spring out of nowhere. And where you hurt isn’t necessarily where you’ll find the cause of the problem. Robert Eastlack, M.D., a spine specialist at the Scripps Clinic for Orthopaedic Surgery, in San Diego, breaks down the most common issues here.

scoliosis
Occurring in the mid- or lower back, this usually hereditary condition is characterized by an S- or C-shaped spine and has no known trigger. Scoliosis surfaces during adolescence or old age and causes nagging muscle or joint pain as it progresses.

deconditioned muscles
Hundreds of strong muscles stabilize the vertebrae. But like your abdominals, they’re stronger when worked out. If they weaken, they have a tough time holding the spine in place when you bend, lift, or twist. The result? Joint pain or muscle spasms anywhere along the spine.

sacroiliac joint pain
You’ll feel this in the lower back, where the spine meets the pelvic bones on each side. Pregnancy, stress fractures, or twisting in an odd way can trigger it. Pain may also occur in the pelvis, buttocks, hip, groin, or thigh.

muscle tension
Sometimes a sore muscle is just a sore muscle. But sometimes it can also be the effect of other conditions that are lower down on the spine—for instance, arthritis or a pinched nerve (see below). The muscles react in spasm to the problematic joint or nerve and you feel it in your mid- to upper back or your neck.

arthritic joints
Arthritis is not just blemished knees and stiff fingers. It typically strikes in the mid-cervical spine or the lower lumbar spine. It may feel like a dull ache (when you extend your upper back, say, to lean in and read a computer screen) or a sharp pain that radiates from the point of origin (such as from the neck to the head).

pinched nerve
When structural changes in the vertebrae or the spinal column, like a herniated disk or stenosis (see below), place pressure on a nerve, the nerve transmits the message “Ouch!” to other body parts connected to the spine. So though you may feel pain in a shoulder blade or an arm, the problem is in your neck. If you feel pain in the buttocks or a leg, the problem may be in your lower back.

disk degeneration
This umbrella term describes any deterioration in disk tissue, which can lead to herniation (see below), and it can occur anywhere along the spine. The condition is usually hereditary, but repetitive heavy lifting and weak core muscles can also bring it on.

herniated disk
Also known as a “slipped” or “ruptured” disk, this condition arises when a disk’s gel-like interior pushes through cracks in the disk wall. You’ll sense an ache or a numbness in an arm or leg, even though the source of the pain is the disk, whether it’s high or low on the spine. Heavy lifting can cause a rupture, but the vast majority of cases occur from aging.

stenosis
You’ll feel pain, numbness, or tingling in your arms or legs, but the cause is in the spinal column, which has become so compressed, primarily from arthritis or disk degeneration (see above), that the transmission of nerve impulses along the spinal cord is disrupted.

sciatica
Often a symptom of lower-back disk herniation, the pain follows the sciatic-nerve pathway and shoots into the hips, buttocks, and legs. Disk degeneration and arthritis can trigger it. Jumping, lifting, and bending can aggravate it.