Ankylosing spondylitis (AS) is arthritis that affects the spine. AS often involves redness, heat, swelling, and pain in the spine or where the bottom of the spine joins the pelvic bone. AS may also affect the shoulders, ribs, hips, knees, feet, eyes, and bowel. Treatments for AS typically include medicines, exercise, and proper diet. Surgery may be recommended in some cases. See your doctor often and follow the treatment plan your doctor gave you.

What is ankylosing spondylitis?
Side and back views of the spine

Ankylosing spondylitis (AS) is a type of arthritis that affects the spine. AS often involves redness, heat, swelling, and pain in the spine or in the joint where the bottom of the spine (sacrum) joins the pelvic bone (ilium).

In some people, AS can also affect the shoulders, ribs, hips, knees, and feet. It can also affect areas where the tendons and ligaments attach to the bones. Sometimes it can affect the eyes, bowel, and very rarely, the heart and lungs.
Many people with AS have mild back pain that comes and goes. Others have severe pain that doesn’t go away. Sometimes the spine becomes stiff. In the worst cases, the swelling can cause two or more bones of the spine to fuse. This may stiffen the rib cage, making it hard to take a deep breath.

Who gets ankylosing spondylitis?
A combination of genes may make it more likely you will get ankylosing spondylitis (AS). The environment also probably plays a role. Men are about twice more likely than women to get AS.

What causes ankylosing spondylitis?
The cause of ankylosing spondylitis (AS) is unknown. It’s likely that genes (passed from parents to children) and the environment both play a role. The main gene associated with the risk for AS is called HLA-B27. Having the gene doesn’t mean you will get AS. Fewer than 1 of 20 people with HLA-B27 gets AS. Scientists recently discovered two more genes (IL23R and ERAP1) that, along with HLA-B27, make it more likely you will get AS.

Is there a test for ankylosing spondylitis?
To test for ankylosing spondylitis, your doctor will need:

- A medical history.
- A physical exam.
- Images of your bones and joints.
- Blood tests.

How is ankylosing spondylitis treated?
There is no cure for ankylosing spondylitis (AS). Some treatments help symptoms and may keep the disease from getting worse. In most cases, your treatment will include medicine, exercise, and a healthy diet. In some cases, surgery can repair some joint damage.

- Medicines: Several types of medicines are used to treat AS. It is important to work with your doctor to find the safest and most effective medicine for you. Medicines for AS include:
  - Nonsteroidal anti-inflammatory drugs (NSAIDs). These drugs relieve pain and swelling. Aspirin, ibuprofen, and naproxen are examples of NSAIDs.
  - Corticosteroids. These strong drugs are similar to the cortisone made by your body. They fight pain and swelling.
  - Disease-modifying antirheumatic drugs (DMARDs). These drugs work in different ways to
reduce pain and swelling in AS.
- Biologic agents. These are newer types of medicine. They block proteins involved with pain and swelling.

- **Exercise:** Exercise and stretching may help painful, stiff joints. It should be done carefully and increased gradually. Before beginning an exercise program, it's important to speak with a doctor to decide on an exercise program. Many people with AS find it helpful to exercise in water. Two types of exercises may help:
  - Exercises to make you stronger.
  - Exercises where you gently straighten and bend your joints as far as they will comfortably go.

- **Diet:** A healthy diet is good for everyone and may be very helpful if you have AS. Keeping a healthy weight reduces stress on painful joints. Omega-3 fatty acids, found in coldwater fish (such as tuna and salmon), flax seeds, and walnuts, might help. This is still being studied.
- **Surgery:** If AS causes joint damage that makes daily activities difficult, joint replacement may be an option. The knee and hip are the joints most often replaced. In very rare cases, your doctor may suggest surgery to straighten the spin. This can only be done by a surgeon with a lot of experience in the procedure.

**Who treats ankylosing spondylitis?**

A rheumatologist usually diagnosis you with ankylosing spondylitis (AS). This is a doctor trained to treat arthritis and related conditions. Because AS can affect different parts of your body, you may need to see more than one doctor. Some other doctors who treat AS symptoms are:

- An ophthalmologist, who treats eye disease.
- A gastroenterologist, who treats bowel disease.
- A physiatrist, who specializes in physical medicine and rehabilitation.
- A physical therapist, who provides stretching and exercise programs.

**Living with ankylosing spondylitis**

These are important things you can do:

- See your doctor often.
- Follow the treatment plan that your doctor gave you.
- Stay active with regular exercise.
- Maintain a healthy diet.
• Practice good posture.
• Don’t smoke.

For more info

U.S. Food and Drug Administration
Toll free: 888-INFO-FDA (888-463-6332)
Website: https://www.fda.gov

Drugs@FDA at https://www.accessdata.fda.gov/scripts/cder/daf. Drugs@FDA is a searchable catalog of FDA-approved drug products.

Centers for Disease Control and Prevention, National Center for Health Statistics
Website: https://www.cdc.gov/nchs

Spondylitis Association of America
Website: https://www.spondylitis.org/

Arthritis Foundation
Website: https://www.arthritis.org

If you need more information about available resources in your language or other languages, please visit our webpages below or contact the NIAMS Information Clearinghouse at NIAMSInfo@mail.nih.gov.

• Asian Language Health Information
• Spanish Language Health Information