



What Is Spina Bifida Occulta?

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Spina Bifida Occulta (SBO) is commonly identified on X-rays or other imaging of the spine. The words literally mean “hidden split spine.” In people with SBO, the bony covering in the back of the spine does not close completely, but there is no opening or sac in the back as seen in other types of Spina Bifida, and the lesion is covered in skin. The spinal cord and the nerves are usually normal.

About 10% of adults have SBO, and most of them have no symptoms. They often never know they have SBO unless they get an X-ray of their back which shows that one or more bones in the back do not look normal. A much higher percentage of children will have SBO on imaging studies of the spine (up to half), but it appears that the vast majority of these are in the growth process and ultimately close over or resolve.

SBO itself is not a cause of back pain. SBO identified by routine imaging of the spine typically does not warrant any further evaluation or concern unless there are neurological, structural, or skin issues as described below.

Are there signs SBO may be a problem?

In people with SBO or other spinal anomalies, the following may indicate a serious neurologic problem such as a tethered spinal cord, a condition in which the spinal cord gets stretched:

- Pain radiating into one or both legs.
- Weakness in one or both legs.
- Numbness or other changes in feeling the legs or back.
- Balance difficulties.
- Changes in bowel or bladder function (including a child that is slow to potty train).
- Scoliosis.
- Abnormalities of foot alignment (such as the foot being turned more inward than usual).

People who have any of those concerns should see a healthcare provider right away. Evaluation for neurologic problems can include Magnetic Resonance Imaging (MRI) or, in newborns, an ultrasound of the spine.

There are some forms of Spina Bifida Occulta that do cause problems. They are:

- Lipomyelomeningocele and lipomeningocele - the spinal cord is attached, or tethered, to fat from under the skin.
- Thickened, fatty filum - the filum, a string which we all have that runs from the bottom of the cord to the tail bone, is either too thick and/or infiltrated with fat. Either a thickened and/or fatty filum may be tethering to the spinal cord.
- Diastematomyelia (split spinal cord) and diplomyelia - the spinal cord splits into two hemicords around either a fibrous or bony spur. The cord or hemicords end in a fatty mass or filum, which may also be tethered to the cord.
- Dermal sinus tract—when a band of tissue connects the spinal canal/cord and the skin of the back. This tract is not only tethering to the spinal cord but may also be a portal of entry for bacteria into the nervous system.

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What about people with no leg pain or neurologic problem?

Although not specific to SBO, other clues to a possible spinal cord problem include skin abnormalities in the low back, such as the following:

- Hairy patch.
- Fatty lump.
- Red or purple spot (which might be a hemangioma, a benign growth of blood vessels).
- Dark spot or birthmark. An exception is the blue-black marks called “Mongolian spots,” which are not a risk factor for SBO or neurologic problems.
- Deep hole or tunnel in the skin, especially if it’s higher than the top of the buttocks crease. This is called a skin tract or sinus. It can look like a deep dimple.
- Area of less skin color, called a hypopigmented spot.

Anyone with a skin condition should be evaluated by a health care provider.

Low Back Pain and SBO

Low back pain is a very common problem. SBO does not appear to cause low back pain, and many people who happen to have low back pain for other reasons may also have SBO identified on X-rays. There is no difference in the treatment for low back pain in those with SBO than for those without SBO, and no specific treatment is needed. Low back pain is generally treated with activity, exercise, topical heat, and over-the-counter medications. Excessive rest is likely harmful in the long run. Lower impact activities like walking, swimming, yoga, or riding bike can be helpful. For severe or persisting pain, physical therapy or chiropractic care may be appropriate. Physical therapists can help develop an appropriate exercise plan and inform their patients about how to help minimize or prevent further episodes of pain.

If the back pain is associated with pain radiating from the back into the legs (sciatica); numbness, tingling, or weakness in the legs; balance difficulties; changes in bladder or bowel function; or other issues as described above, it is best to seek medical evaluation through a primary care provider initially.

Physiatrists (physicians specializing in Physical Medicine and Rehabilitation) specifically focus on non-operative / non-surgical care for pain and joint issues and can be excellent resources for back pain, SBO, or spine-related concerns. Spine surgeons (either orthopedic surgeons or neurosurgeons) can be consulted for surgical considerations regarding back pain and spinal disorders. They are able to direct non-operative care for spine issues like back pain and SBO, as well. Neurologists generally address neurologic concerns such as weakness or numbness, if present.

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Finding the Right Provider

Spina Bifida Occulta Found on X-ray

Asymptomatic

Variant of Normal
No further workup or treatment required.

Symptomatic

- Back pain especially in a child, or back pain that occurs with leg pain or abnormal sensation (tingling, pricking, chilling, burning, numbness)
- Lower extremity weakness, gait change, decrease in stamina
- Scoliosis
- Change in bowel or bladder functioning (e.g. urgency, incontinence, multiple/unexplained infections)
- Skin abnormalities over the lower back (e.g. hairy patch, fatty lump, red or purple mark, mark that is darker or lighter than the rest of the skin, or hole or tunnel in the skin)

Obtain Lumbosacral MRI or Spinal Ultrasound in Newborns

Spinal Cord Abnormal
(low-lying conus, tethering, fatty filum)

Evaluation with Neurosurgeon

Spinal Cord Normal
Imaging may show other abnormalities (bone, discs, soft tissue)

Evaluation with Physiatrist, Musculoskeletal Spine Specialist, Interventional Spine Specialist, Neurologist, or Pain Specialist