



# Lipomas and Lipomyelomeningoceles

## What is a spinal cord lipoma?

A spinal cord lipoma is a fatty mass or tumor within the spinal cord that may or may not be associated with Spina Bifida—see below. It often occurs in a normally positioned cord without any skin or bony abnormalities.

## Who gets spinal cord lipomas?

Spinal cord lipomas not associated with Spina Bifida are rare lesions that affect males and females equally. Most commonly they are located within the thoracic spinal cord. They may be symptomatic but more commonly present in adulthood.

## What are the symptoms of spinal cord lipomas?

Patients come to attention with gradual evidence of spinal cord compression. This compression can lead to sensory changes (numbness, tingling), weakness, difficulty with urinating or with bowel movements, incontinence, and spasticity (stiffness) of the extremities.

## How are spinal cord lipomas treated?

The lipoma is removed as other spinal cord tumors are removed. A laminectomy is performed to gain opening to the spinal cord. The goal of the procedure is important and is not the total removal of the fat but rather the substantial debulking of the lipoma. No other treatment method is recommended.

## What is a lipomyelomeningocele?

This is a congenital lesion that is associated with Spina Bifida (congenital failure of closure of the spinal bones). This is associated with abnormal fat accumulation that starts below the level of the skin and extends through the bony opening to the spinal cord. The lesion itself is composed of a descended conus medullaris infiltrated by fat, which continues out of a dural, bony, and fascial defect to emerge as a skin-covered subcutaneous mass that is usually found in the lumbosacral region. An intramedullary lipoma is a lipoma of the conus medullaris that does not extend outside the dura.

## Who gets lipomyelomeningoceles?

These lesions become evident within the first few months to the first years of life. This lesion affects females more than males in a 1.5 to 1 ratio.

## What are the symptoms of a lipomyelomeningocele?

More than 90% of patients will have an obvious soft tissue swelling over the spine in the lumbosacral region. These lesions are covered by skin and are not painful. Patients may lose neurological function within the first few weeks after birth but more typically the time course for deterioration is over a period of months to years. The neurological symptoms are usually weakness and bladder and bowel incontinence. The weakness may be symmetrical or asymmetrical and may result in atrophy of the lower extremities. In older adolescents and adults, pain may be the driving force to bring the patient in for clinical evaluation. The pain may be difficult to describe; it may be radiating in nature. There may be a limitation of back mobility.

## How are these lesions diagnosed?

MRI has become the imaging procedure of choice for lipomyelomeningoceles and spinal cord lipomas. These can give extraordinary anatomical details. This will help the surgeon plan the operative procedure. Plain X-rays will show Spina Bifida in most cases.

## How are lipomyelomeningoceles treated?

Since symptoms are due to (1) tethering of the spinal cord, especially during growth spurts, and (2) compression due to progressive deposition of fat, especially during periods of rapid weight gain; the goals of surgery are to release the attachment of the fat to the spinal cord (tethering) and reduce the bulk of the fatty tumor. Simple cosmetic treatment of the subcutaneous fat pad does not prevent neurologic deficit, and may make later definitive treatment more difficult.

Lipomas and lipomyelomeningoceles tether the cord. With normal growth the tethered cord cannot ascend as the normal cord does and comes under tension. Surgery may be performed to prevent any further decline. Surgical treatment is indicated when the patient reaches 2 months of age, or at the time of diagnosis if the patient presents at a later age. Even with surgery scar tissue can still form and cause some tethering. The point of surgical treatment is to prevent any further decline.

This information does not constitute medical advice for any individual. As specific cases may vary from the general information presented here, SBA advises readers to consult a qualified medical or other professional on an individual basis.

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