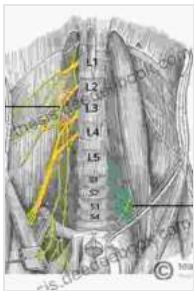


Surgical Anatomy of the Sacral Plexus and Its Branches

The sacral plexus is a network of nerves that originates from the spinal cord and innervates the lower limbs and pelvic organs. It is formed by the ventral rami of the L4, L5, S1, S2, and S3 nerve roots. The sacral plexus is located in the pelvis, lateral to the rectum and anterior to the piriformis muscle.

Components of the Sacral Plexus

The sacral plexus is composed of five main branches:



Surgical anatomy of the sacral plexus and its branches

by R. Shane Tubbs

★★★★☆ 4.6 out of 5

Language : English

File size : 174160 KB

Text-to-Speech : Enabled

Screen Reader : Supported

Enhanced typesetting : Enabled

Print length : 229 pages



- **Lateral femoral cutaneous nerve:** Innervates the skin of the anterolateral thigh.
- **Common fibular nerve:** Divides into the superficial and deep fibular nerves, which innervate the muscles of the leg and foot.
- **Tibial nerve:** Innervates the muscles of the calf and foot.

- **Sciatic nerve:** The largest branch of the sacral plexus, which innervates the muscles of the posterior thigh, leg, and foot.
- **Pudendal nerve:** Innervates the muscles of the perineum and external genitalia.

Surgical Approaches to the Sacral Plexus

There are several surgical approaches to the sacral plexus, depending on the specific branch or branches that need to be accessed. These approaches include:

- **Anterior approach:** This approach provides access to the lumbosacral trunk and the lateral femoral cutaneous, common fibular, and tibial nerves.
- **Posterior approach:** This approach provides access to the sciatic and pudendal nerves.
- **Transgluteal approach:** This approach provides access to the sciatic and pudendal nerves through the gluteal muscles.
- **Transperineal approach:** This approach provides access to the pudendal nerve through the perineum.

Variations of the Sacral Plexus

The sacral plexus is subject to a number of variations, including:

- **Double sciatic nerve:** In this variation, the sciatic nerve divides into two separate branches.
- **Absence of the lateral femoral cutaneous nerve:** In this variation, the lateral femoral cutaneous nerve is absent, and the skin of the

anterolateral thigh is innervated by the femoral nerve.

- **Anomalous innervation of the calf muscles:** In this variation, the tibial and common fibular nerves may innervate different calf muscles than usual.

Clinical Significance of the Sacral Plexus

The sacral plexus is involved in a number of clinical conditions, including:

- **Sacral plexus injury:** This can occur as a result of trauma, surgery, or childbirth, and can lead to paralysis of the lower limbs and pelvic organs.
- **Piriformis syndrome:** This is a condition in which the piriformis muscle compresses the sciatic nerve, causing pain and numbness in the buttocks and leg.
- **Sciatica:** This is a condition characterized by pain and numbness in the distribution of the sciatic nerve. It can be caused by a number of factors, including herniated discs, spinal stenosis, and piriformis syndrome.

The sacral plexus is a complex network of nerves that is essential for the function of the lower limbs and pelvic organs. A thorough understanding of its surgical anatomy is essential for surgeons performing procedures in this region. The various surgical approaches to the sacral plexus allow surgeons to access the specific branches that need to be addressed. Variations in the sacral plexus are common, and it is important to be aware of these when planning surgical procedures. The sacral plexus is involved in a number of clinical conditions, and it is important to be able to recognize and treat these conditions.



Surgical anatomy of the sacral plexus and its branches

by R. Shane Tubbs

★★★★☆ 4.6 out of 5

Language : English

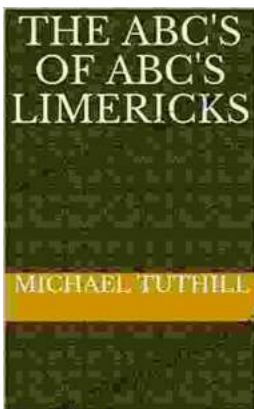
File size : 174160 KB

Text-to-Speech : Enabled

Screen Reader : Supported

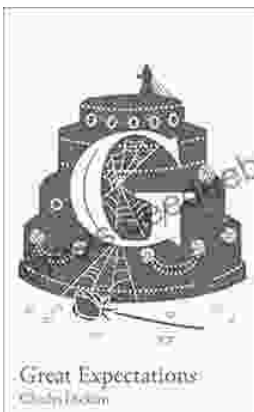
Enhanced typesetting : Enabled

Print length : 229 pages



The ABC of ABC Limericks: A Comprehensive Guide to the Quintessential Verse Form

: A Journey into the World of Limericks Welcome to the whimsical and witty world of ABC limericks, a beloved form of verse that...



GCSE Set Text Student Edition: Collins Classroom Classics - A Comprehensive Review

The GCSE Set Text Student Edition: Collins Classroom Classics is a meticulously crafted resource designed to support students in their GCSE English Literature studies....

