Three meninges of spinal cord

THE URL of this also called: Spinal meningitis Meningitis is an inflammation of the thin tissue that surrounds the brain and spinal cord, called the film. There are several types of meningitis. The most common is viral meningitis. You get it when the virus enters the body through the nose or mouth and goes to the brain. Bacterial meningitis is rare but can be fatal. It usually starts with bacteria that cause a cold infection. This can lead to stroke, hearing loss and brain damage. It can also harm other organs. Pneumococcal infections and meningococcal infections are the most common causes of bacterial meningitis. Anyone can get meningitis, but it is more common in people with weak immune systems. Meningitis can get serious very quickly. You should be treated immediately for medical care if you have a sudden high fever Severe headache Stiff throat Nausea or vomiting Early treatment can help prevent serious problems, including death. Tests to diagnose meningitis include blood tests, imaging tests, and a spinal tap to test the cerebrospinal fluid. Antibiotics can treat bacterial meningitis. Antiviral drugs can help certain types of viral meningitis. Other medicines can help treat symptoms. There are vaccines to prevent some bacterial infections that cause meningitis. NIH: National Institute of Neurological Disorders and Stroke Meningococcal Photography (Centers for Disease Control and Prevention) Treatment of meningitis (American Academy of Neurology) - PDF Meningitis (Nemours Foundation) Also spanish URL of this page: URL of this page: Your spinal cord is a bundle of nerves that go down the middle of your back. It carries signals there and back between your body and your brain. Spinal cord injuries interfere with signals. Spinal cord injuries usually begin with a blow that fractures (fractures) or dissives your vertebrae, the bone discs that make up your spine. Most injuries are not cut through the spinal cord. Instead, they cause damage when pieces of pulsaral tears into the ductile tissues or press down the nerve parts that carry signals. Spinal cord injuries may be complete or incomplete. With a full spinal cord injury, the cord cannot send signals below the level of the injury. As a result, you are paralyzed under the injury. With incomplete injuries, you have some movement and feeling under the trauma. Spinal cord injury is an ambulance. Immediate treatment can reduce long-term exposure. Treatments may include medications, braces or thrust to stabilize the spine, and surgery. Subsequent treatment usually involves medication and rehabilitation therapy. Mobility aids features and accessories can help you get around and perform some daily tasks. NIH: National Institute of Neurological Disorders and Researchers say NIH: National Institute of Neurological Disorders and Strokes Says the spine could process some information that was previously believed to do so to the brain. Some PinterestExperts say this latest study could help with the development of treatments for people with back injuries. Getty ImagesMany of us understand that most decision-making and actions originate in the brain. But it might be time to reflect on this settling- There are circuits that are part of our nervous system that travels through the spine and control some relatively simple things, including pain reflex in humans, as well as some motor functions in animals. Now, research from the University of Western Canada has indicated the spinal cord may also be able to handle such complex functions as positioning the arm in the outer space. This study has shown that at least one important function is performed at the spinal cord level, and it opens up a whole new area of investigation, namely What else is being done at the spine level and what else we probably missed in this area?, said Andrew Pruszynski, PhD, study senior and monitoring researcher and assistant professor at the Western Schulich School of Medicine & Dentistry and Canadian Research Chair for Sensors in Motor Neuroscience, in a statement. This type of hand control requires sensory input from several joints, mainly the elbow and arm. These data were previously believed to be processed and converted into motor commands in the cerebral cortex of the brain. By measuring the lag or latency in response, the researchers were able to determine whether the treatment actually occurs in the spine or brain. Several uses are possible for this study. Among them are treatment disorders through back communication. This rehabilitative advance in the rehabilitating renight advances potential people in the area. Dr. Robert L. Masson, medical director of the NeuroSpine Center of Excellence at Orlando Health Central Hospital, said anatomical compounds have been known for decades. All kinds of pathways bypass the brain – or thinking brain. There are many vegetative pathways and new ways to use robotics, Masson told Healthline. There has been no way to bridge the gap between the brain and the injured part of the body. With exoskeleton, [injured people] can use limbs that could not before, he explained. People who are paraplegic won't be walking tomorrow, he noted, despite a video showing people who are disabled walking. It is very important to remain optimistic. Technology is growing, but solutions are on the horizon, Masson said. Even if there isn't a remedy right in front of them, you have to keep your body tuned in, he said. Doing exercise while maintaining strong and flexible. This is a way to ensure that when the technology is ready, the patient will be ready to use it. A understanding of neurocircuits is crucial to any form of progress in the rehabilitation front, said Pruszynski, who is also a scientist at the Western Robarts Research Institute and the Brain and Mind Institute. Here we can see how this knowledge could lead to different types of training schemes that focus on back schemes. Researchers at Western's Brain and Mind Institute use specialized robotic technology, a three-degree freedom exoskeleton. The study participants were told to keep their hands in the target position. Then the robot bumped it away from the target while flexing or expanding the wrist and elbow. Researchers measured the time that was on the elbow and wrist muscles to respond to the bump of the robot. They wanted to see if these answers helped put their hands back to the original goal. What we see is that these spinal circuits don't really care about what's happening at individual joints, Jeff Weiler, PhD, a postdoctoral fellow at the Schulich School of Medicine & Dentistry and the study's lead researcher, said in a statement. They care about where the hand is in the outer world, and create an answer that tries to put their hands back to where it came from, he explained. The reaction caused by the spinal cord is called a stretch reflex and was previously thought to be limited in terms of how it helps movement. Historically, it was believed that these spinal reflexes only act to restore the length of muscle whatever happened before the stretch occurred, said Pruszynski. We show that they can actually do something much more complicated - to control the hand in space. Perhaps in the future, we will not only refer to others as brainiacs, but spineacs as well. The spinal cord is a cylindrical-shaped bundle of nerve fibers that is connected to the brain's brain stem. The spinal cord goes down in the center of the protective spine stretching from the neck to the lower back. The brain and spinal cord are the main components of the central nervous system (CNS). The CNS is a nerve system treatment center that receives information from the peripheral nervous system and sends it to the peripheral nervous system. Peripheral nerve system cells connect various organs and structures in the body's CNS through the cranial nerves and spinal nerves. Spinal cord nerves transfer information from body organs and external stimuli to the brain and transmit information from the brain to other areas of the body. Spinal cord anatomy. PIXOLOGICSTUDIO/SCIENCE PHOTO LIBRARY/Getty Images The spinal cord consists of nerve tissue. The interior of the spinal cord consists of neurons, nerve system support cells, called glia, and blood vessels. Neurons are the basic unit of nerve tissue. They consist of a cell body and that extends from a cell that is able to carry and transmit nerve signals. These projections are axons (take signals away from cells in the body) and dendrites (to carry signals against cells in the body). Neurons and their dendrites are contained in an H-shaped region of the spinal cord called a gray matter. The area of the surrounding grey matter is a region called white matter. The white matter part of the spinal cord contains axons that are covered with an insulating substance called myelin. Myelin is whitish in appearance and allows electrical signals to flow freely and quickly. Axons take signals along the descending and ascending treatise away from and to the brain. The spinal cord is a bundle of nerve fibers that extends from the brain stem down the spinal column to the lower back. A central nervous system component, it sends and receives information between the brain and the rest of the body. The spinal cord consists of neurons that send and receive signals along the tract and away from the brain. There are 31 pairs of spinal nerves, each pair with sensory root and motor root. The location of the nerves in the spinal cord determines its function. Cervical spinal nerves (C1 to C8) control signals on the back of the head; chest spinal nerves (T1 to T12) control signals for the muscles of the chest and back; lumbar spine nerves (L1 to L5) control signals in the lower abdomen and back; the cordal spinal nerves (S1 to S5) control signals to the thighs and lower part of the legs, and the coccygeal nerve transmits a signal from the lower back of the skin. The spinal cord is protected by the spinal vertebrae that form the spine. Nerve cell growth. Dr. Torsten Wittmann/Science Photo Library/Getty Images Neurons are classified as either motor, sensory or interneurons. Motor neurons carry information from the central nervous system to organs, glands, and muscles. Sensory neurons transmit information to the central nervous system from the internal organs or from external stimuli. Interneurons relay signals between the motor and sensory neurons. Descending tracts of the spinal cord consist of motor nerves that send signals from the brain to control volunteers and involuntary muscles. They also help maintain homeostasis, helping to regulate autonomic functions such as heart rate, blood pressure, and internal temperature. In the growing tracts of the spinal cord consists of sensory nerves that send signals from the internal organs and external signals from the skin and extremities to the brain. Reflexes and repetitive movements are controlled by spinal cord neuron circuitry, which is stimulated by sensory information without input from the brain. This image shows the nerve roots of the spinal nerve coming from the vertebrae. JACOPIN/BSIP/Corbis Documentary/Getty Images axons connecting spine the muscles and the rest of the body are bundled into 31 pairs of spinal nerves, each pair with sensory root and motor root, which makes connections of gray matter. These nerves must go between the protective barrier of the spine to connect the spinal cord with the rest of the body. The location of the nerves in the spinal cord determines its function. The spinal cord is also arranged in segments and named and numbered from top to bottom. Each segment marks where the dorsal nerves get out of the cord to connect to specific areas of the body. The location of the spinal cord segments does not exactly match the areas of the spine, but they are roughly equivalent. Cervical spinal nerves (C1 to C8) control signals on the back of the head, neck and shoulders, arms and arms, and diaphragm. The chest spinal nerves (T1 to T12) control signals the chest muscles, some muscles in the back, and parts of the abdomen. Lumbar spine (L1 to L5) controls the lower abdomen and back, buttocks, parts of the external genital organs and parts of the legs. The sacral spinal nerves (S1 to S5) control signals to the thighs and lower parts of the legs, legs, most external genitals, and around the. One coccygeal nerve carries sensory information from the skin to the lower back. Human spine project. This is a detailed project of the human spine showing a side view with different regions and vertebrae marked. wetcake/Getty Images Porous spinal cord is protected by irregular-shaped bones in the spine called vertebrae. The spinal vertebrae are components of the axial skeleton and each contains an opening that serves as a channel for the spinal cord to pass through. Between stacked vertebrae are discs of semi-hard cartilage, and in the narrow spaces between them there are fragments through which the dorsal nerves pass out to the rest of the body. These are places where the spinal cord is vulnerable to direct injuries. The vertebrae can be arranged in sections and are named and numbered from top to bottom according to their location along the spine: Cervical vertebrae (1-7), located in the neckThoracic vertebrae (1-12) upper rear (attached ribcage)Lumb with ver debrae (1-5) lower backSalbrae (1-5) in the hip areaCoccygeal vertebrae (1-4 fused) tail bone Spinal cord injury effects vary depending on the size and severity of the injury. Spinal cord injuries can cut off normal communication with the brain, which can cause complete or incomplete damage. Complete injury results in a total lack of sensory and motor function below the level of injury. If there is an incomplete injury, the ability of the spinal cord to pass messages to or from the brain is not completely lost. This type of injury to maintain any motor or sensory function under the injury.
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