

Nervous System



To better understand and appreciate the incredible nature of this system, we will now explore it through a five-dimensional reflection.

Is it good or bad to feel pain? Have you heard the story of the boy who feels no pain? Isaac Brown, a little boy living in the United States, was born with a condition preventing him from feeling pain called “Congenital Insensitivity to Pain”. Isaac’s nerve cells had a defect that prevented them from functioning correctly. As a young child, Isaac was unable to feel the sensation of pain after touching a hot stove or dipping his hand in hot coffee and once even broke his pelvis without experiencing significant pain. To protect him from injury, his parents had to teach him that seeing blood was bad and to say the word “Ow” if someone accidentally stepped on him! Thus, you should be thankful for feeling

pain through your nervous system. To better understand and appreciate the incredible nature of this system, we will now explore it through a five-dimensional reflection.

It’s actually worse if you never feel pain!

Ouch! It hurts a lot!



First Dimension : Analytical Thinking

SCIENTIFIC UNDERSTANDING OF THE NERVOUS SYSTEM

In the previous chapter, we learned that our body is controlled through the brain that acts like the body's control center. We also learned that attached to the base of our brain is a structure called the **spinal cord**. The brain, spinal cord and millions of nerves found in our body make up what is called the **nervous system**. The brain and spinal cord are known as the central nervous system while the nerves are known as the peripheral nervous system. The nervous system is designed to control and coordinate the parts of our bodies so that they work in harmony. It connects our skin, sensory organs, and skeletal muscles through coordinating motor and sensory information. It is the center where conscious (voluntary) functions like talking, eating, reading and walking, and unconscious (involuntary) functions such as breathing, digestion and the beating of our heart are coordinated. It helps us adopt and react to changes and dangers around us consciously or subconsciously. The body's reaction to danger is also known as "fight or flight". Sometimes it is difficult to distinguish conscious acts from unconscious ones when our body reacts.

FOR EXAMPLE, IF YOU STEP ON A SHARP OBJECT YOU INVOLUNTARILY CRY OUT FOR HELP.

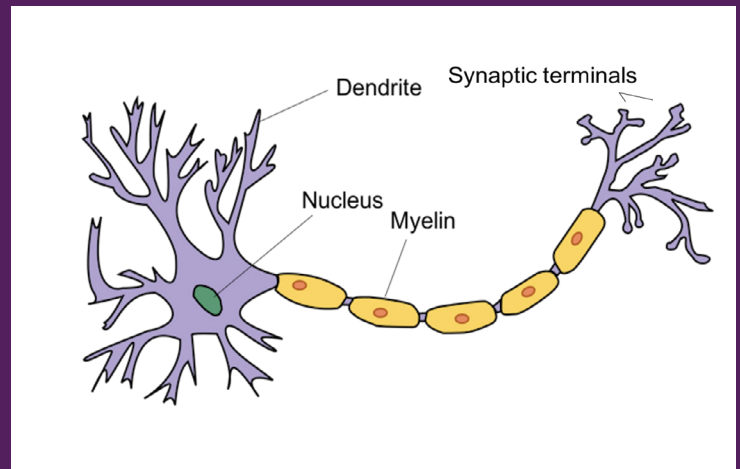
*IS YOUR CRY CONSCIOUS OR UNCONSCIOUS?

*CAN YOU THINK OF OTHER ACTIONS AND DIFFERENTIATE WHETHER THEY ARE VOLUNTARY OR INVOLUNTARY?

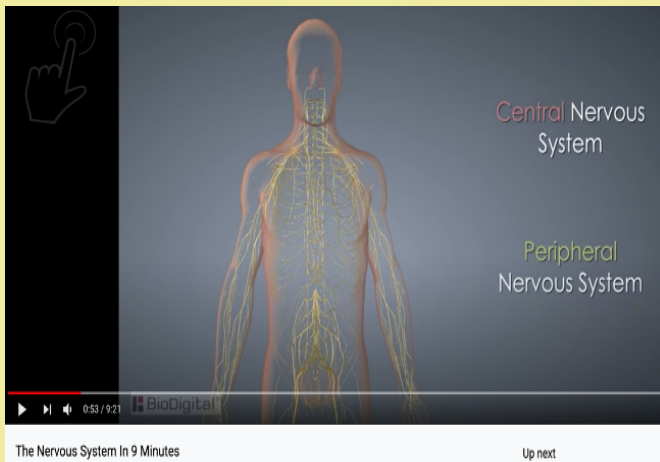


The **spinal cord** is a very thick rope of delicate nervous tissue that runs along your back. Just as the brain is protected by means of the skull, the spinal cord is protected by a bony structure called the **vertebral column**, or **backbone**. One of its roles is to carry signals from the brain to the rest of the body. Another role is to control reflexes. **Reflexes** are quick movements that the body appears to perform without informing the brain. An example of a reflex is when your hand is suddenly pulled away after touching a hot stove. The pain signal received by the skin on your fingers is so strong that an instant response is necessary. There is no time for the pain signal to be processed through your brain, so the spinal cord essentially takes over. Think about what your response would be if you noticed that your baby brother is about to fall off a bed. Would you rush to save him from falling first, or would you call an adult to do it?

Nerve Cell Structure



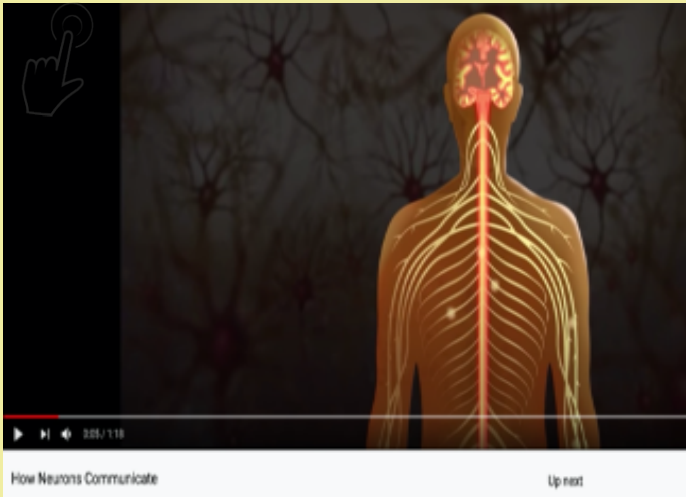
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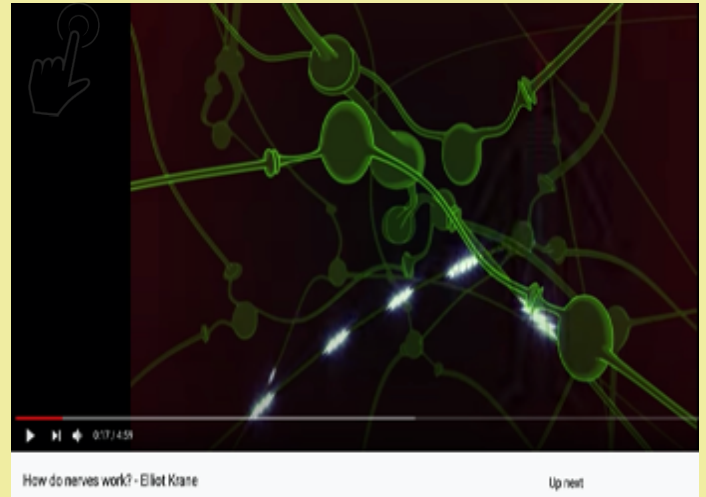
Watch this YouTube video to explore central and peripheral nervous systems to see how both systems appear to coordinate with each other to coordinate the body

Nerves are made up of **nerve cells**, also known as **neurons**. Nerve cells are specialized cells that are designed to transmit signals from one part to another part of the body. Cells are usually circular in shape, but nerve cells are stretched and have branching fibers called **dendrites** that receive signals from neighboring nerve cells. Nerve cells are coated with a fatty substance called **myelin** that facilitates faster travel of signals between cells. Messages between cells seem to move as a result of a combination of electrical and chemical signals.



<https://youtu.be/hGDvvUNU-cw?t=2>

Watch this brief clip to learn how the body is connected to the brain through neural communication system



https://youtu.be/uU_4uA6-zcE

Watch this YouTube clip to explore the nervous system works like an elegant electrical grid system

How do nerve cells work?

At the end of each nerve cell are structures called synaptic terminals. Chemicals called **neurotransmitters** are found inside each synaptic terminal. Neurotransmitters are essentially chemical 'messengers'. They carry information between neurons by crossing a synapse. Since electrical signals cannot 'jump' across the gap between most neurons, they are changed into chemicals that can physically cross the gap. Through these chemicals, messages are transmitted from one nerve cell to another nerve cell or from a nerve cell to a muscle cell.

When we think of doing something, an electrical signal is produced in the brain. This electrical signal is then delivered along the nerve cell to synaptic terminals, which are prompted to release their neurotransmitter chemicals.

YOUTUBE CORNER

These lifeless and unconscious chemicals then move in a seemingly conscious fashion onto the next neuron, which causes a spark, or electrical signal. All these processes occur at incredible speed. Why does this happen so quickly? Well, the speed has to be high enough to prompt an appropriate response from the body.

So, for example, if you decide to flex your right arm, a signal is immediately created in the brain in response to your decision. This signal then passes from the nerve cells in your brain all the way down to the muscle cells in your arm resulting in the contraction of the correct muscles contracting. Your nervous system is thus harmoniously connected to your muscular system and to your entire body.

AMAZING SCIENTIFIC FACTS

DID YOU KNOW? THE BRAIN HAS OVER 100,000 MILES OF AXONS. THAT'S ENOUGH TO WRAP AROUND



The body has a dedicated nervous system, known as enteric system, that automatically regulates bowel movements as a part of digestion.



When a person is at rest, the parasympathetic nervous system is designed to maintain certain bodily functions such as stimulating digestion, activating metabolism, and helping the body relax.



The sympathetic nervous system is designed to tell the body to get ready for physical and mental activity. It causes the heart to beat harder and faster and opens the airways for easy breathing.



Neurons have an elastic property that enables them to stretch.



Neurons are circular in shape to allow signals to be transmitted efficiently.

THE EARTH FOUR TIMES.



The nervous system is composed of a complex system of electrical and chemical wirings which are constructed from neurons to coordinate the body's actions.

Did you know?

Through the cable connection, signals travel along nervous system at high speed.

Remember: Speed is one of the most vital properties of our nervous system. If signals do not travel at high speed, our body would not be able to function properly.



Dendrites send signals to other neurons with a long cable-like part called the axon. An axon can be up to a meter long.



In some neurons, axons are covered with a thin layer of fat called myelin, which acts as an insulator.



Dendrites are placed in between each pair of nerve cells to allow them to communicate.

Second Dimension : Analogical Thinking

NERVOUS SYSTEM VS. MAN-MADE SENSORS

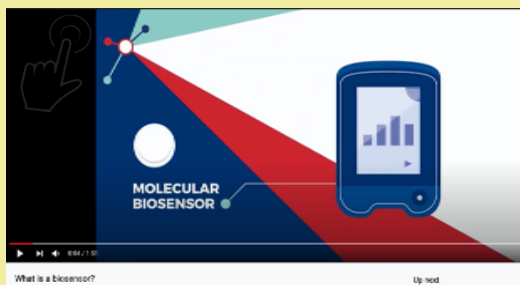


MODERN STREETLIGHT SYSTEMS WORK BY USING LIGHT SENSORS CALLED PHOTOCELLS.

The nervous system has been designed with many functions. Thus, it is quite difficult to find a single man-made object that can mimic our extremely sophisticated nervous system. Nevertheless, to appreciate the various functions of our nervous system better, let us compare the nervous system to: the light sensors in a streetlight system, the coolant temperature sensors in a car, and the postal system.

A man-made system that uses sensors and electrical signals that somehow mimics our nervous system is the automatic streetlight system. Modern streetlight systems work by using light sensors called photocells that detect the level of light in the streets. When it gets dark and the light level is low, the photocell signals to the computing unit found inside each streetlight to activate an electrical signal that switches the streetlight on. At dawn, when the sun begins to light up the sky, the light sensors, which detect an increase in light levels, send a signal to the streetlights that deactivates them and allows them to switch off.

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<https://youtu.be/W95w3D2ZtUk?t=1>

Watch this YouTube video to learn biosensor devices are being developed to monitor human health

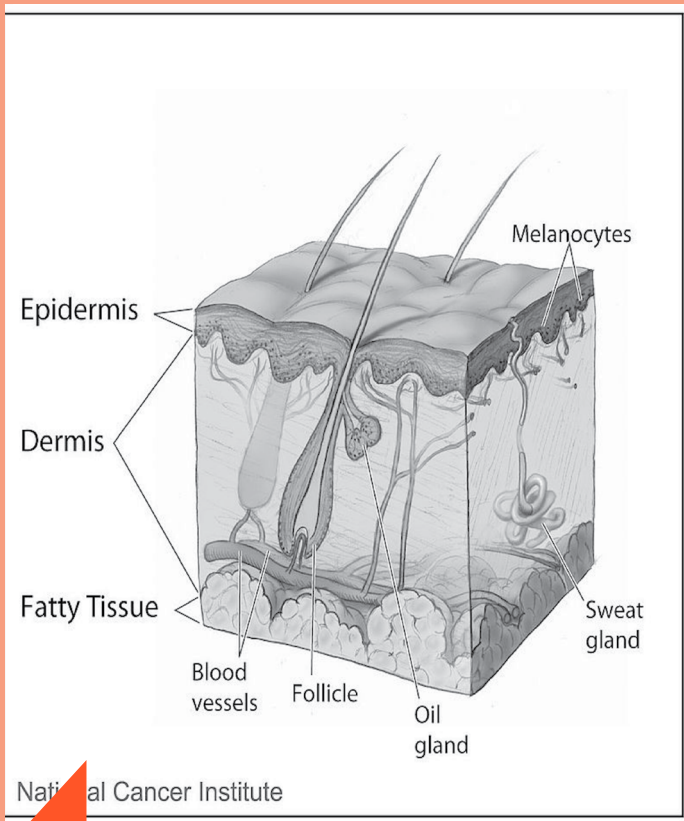


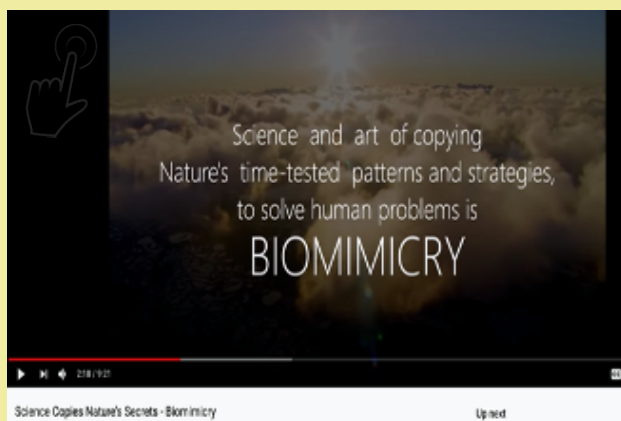
DIAGRAM OF SKIN TISSUE

The ambient light sensor in your smart phone works in a similar way by measuring the light levels in the room you are in and auto-adjusting your screen's brightness accordingly.

Another man-made invention that relies on sensors to detect changes in the external environment is a car's coolant temperature sensor (CTS). This sensor is very important as it keeps track of how hot a car's engine becomes. The CTS works by measuring the temperature of the coolant and sending that temperature recording electronically to the on-board control system (your car's computer system). The car's computer system is programmed to decide whether an action needs to be taken to keep the engine working at an ideal temperature. If the coolant temperature is too high, the cooling fan will be switched on.

In a similar way, sensors in our skin detect temperature changes outside our body. When the external temperature is high, the skin sensors send a signal to our brain. Our brain then responds by sending signals to the muscles lining the blood vessels in our skin and as a result, the vessels and release the excess heat from the body in the form of sweat. When the weather is cold, the skin sensors send a signal to our brain, which is in turn triggered to send a signal back to our muscles to contract repeatedly, allowing us to shiver and generate heat. The nervous system is thus a marvelous mechanism through which your body's responses are coordinated with changes in your environment resulting in a state of balance.

YOUTUBE CORNER



<https://youtu.be/2d1VrCvdzbY?t=88>

Watch this YouTube video to see how many scientific inventions literal copies of what we are found in the universe. That is known as biomimicry

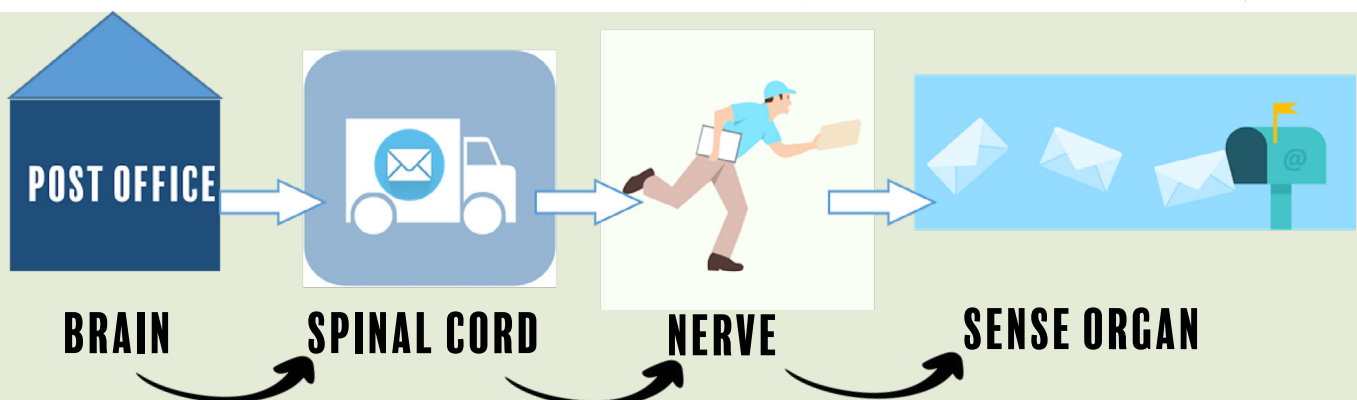
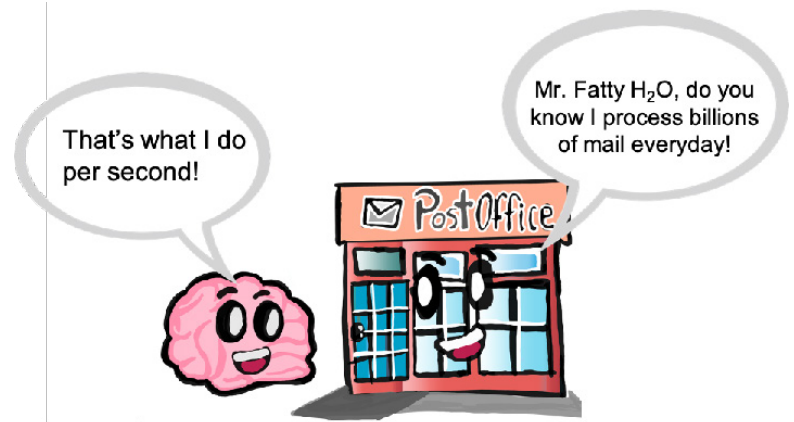
QUESTION:

Test your understanding of the analogy given above by matching each nervous system component to its postal system counterpart.

	1. Nerve	a) Mailbox
	2. Sense Organ	b) Post Office
	3. Electrical Signal	c) Delivery Truck
	4. Spinal Cord	d) Postman
	5. Brain	e) Mail

We can also compare the nervous system to a postal system or a “snail mail” system. From one aspect, the post office, like the brain, is the control center of the whole postal system. In the same way that the brain sends and receives messages in the form of electrical signals, the post office sends and receives messages in the form of mail. You can think of the flow of electrical messages in the nervous system like a complex delivery process of the mail in the postal system. In the nervous system, messages are passed on from the brain to the rest of the body via the spinal cord that essentially acts like a delivery truck in the postal system. After the spinal cord passes a message (in the form of an electrical signal) onto a specific nerve, the nerve delivers it to its final destination: a sensory organ. In a way, you can think of this process like a postman who collects mail from a delivery truck and delivers it to its final destination: a mailbox.

In short, the nervous system somehow functions like an extremely intelligent communication system providing a great platform for constant transmission of information between the brain and the body. In reality, our advanced communication networks and smart sensors are no match for our superb nervous system. Moreover, humans have only recently developed smart devices and systems whereas our body has been using highly sophisticated systems like the nervous system since the beginning of human civilization. Indeed, human inventions are often inspired by the incredible systems found in both human and animal bodies.



Third Dimension : Critical Thinking

EXPLORING THE MAKER OF THE NERVOUS SYSTEM

Reflect on the sensors found in a man-made streetlight system or in our smart devices. What does it take to make them? Would you believe that the wind can produce such devices through the random blowing of sands for years? Can the photocells in a streetlight system function without a power source? Do they function on their own or do they have to be programmed to detect a specific light density?



Now let us imagine that an intelligent, middle aged man from the Middle Ages came and saw our complicated streetlight systems. At first glance, it is likely that he would assume that there must be a genie of some sort inside the streetlights who turns the lights on and off at the right time.

Since the man is equipped with a thinking brain, he will assume that an intelligent being (or beings) exist within the light system in order for them to perform purposeful tasks. If we explained to him how the light system actually works, he would have a difficult time comprehending its complexity. Let us assume that he wanted to know how man-made smart systems and devices came into existence. We would take him to a factory that makes various smart devices. The man would then realize that all smart devices consist of raw materials arranged in a specific order.

What do you think his conclusion would be after studying the smart products and their raw materials?



Consider the following possibilities:

- 1. The wind blows raw materials around arranging them into smart devices.*
- 2. It is in the nature of raw materials to be/evolve into smart devices.*
- 3. Blind, ignorant, and purposeless natural forces shape raw materials into smart devices.*
- 4. Educated people with knowledge, will, and power use specific tools and techniques following predesigned laws to convert the raw materials into smart devices.*

Obviously, the man will engage in critical thinking to find the right answer. For this purpose, he will need to ask a series of questions:

- **Where did those smart devices come from?**
- **How did their blind components come together so meaningfully?**
- **Did they appear out of thin air, or did their intricate components come together randomly?**
- **Is that even possible?**
- **Who designed the ambient light sensor of the smart phone?**
- **Was it the same person who designed the smart phone?**

Of course, we know that there is no way those devices could have been made through the random blowing of raw materials. They cannot be made by animals either. Even very intelligent people could not make them if they do not have the necessary knowledge to do so. They can only be made by the collaborative work of knowledgeable experts.

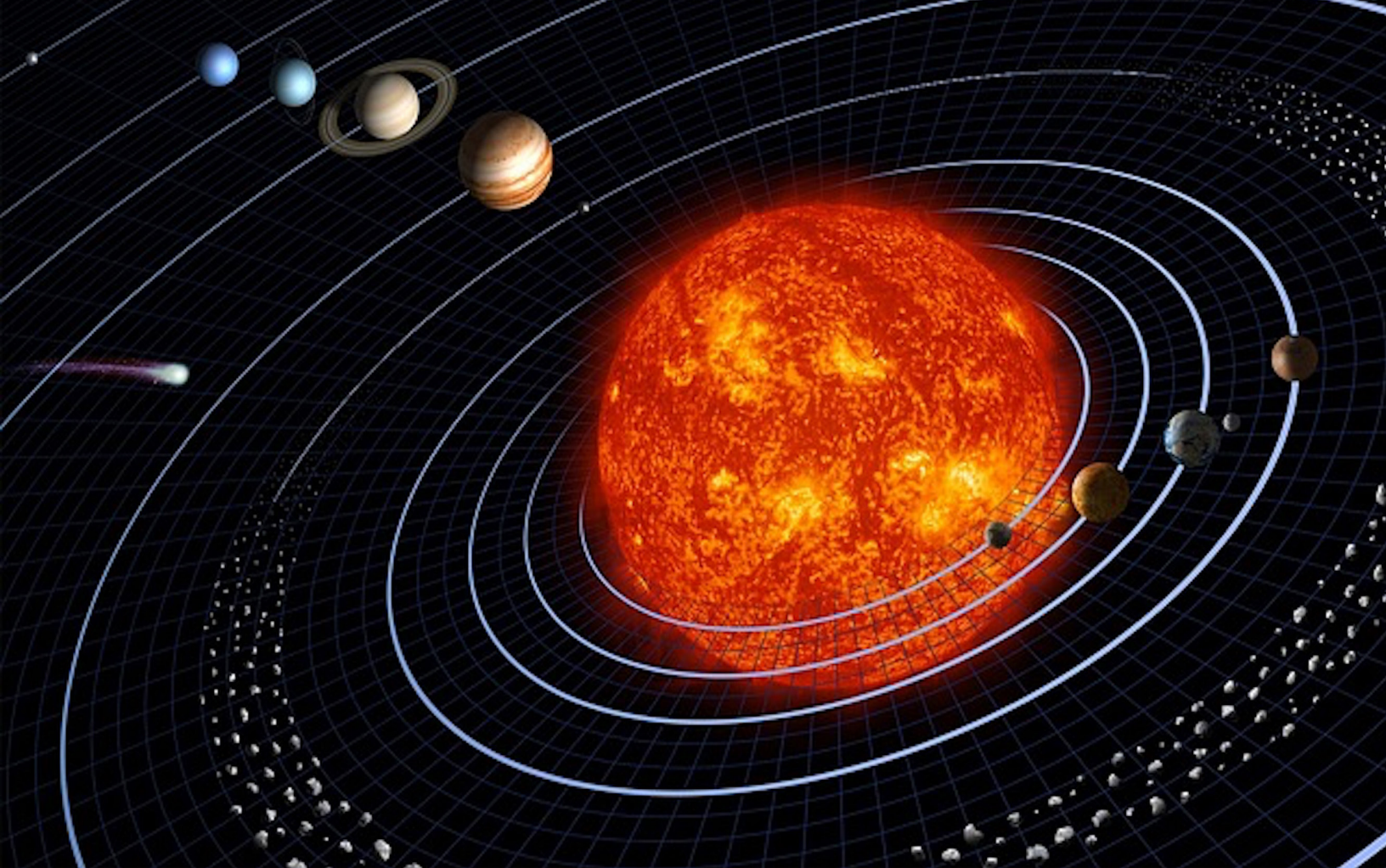
When you are thinking about those questions at this very moment, light rays are bouncing off this page into your eyes and are being processed by the light sensors within your eyes. The light sensors then transfer electrical signals to your brain. Your brain is now making sense of all those little black shapes that make up the writing on the page you are reading. Who designed your brain is such a way that you can comprehend the reality of the written word and understand its meaning?

As we study our brain and nervous system, we will logically conclude that it must be the work of someone with tremendous knowledge and power. We know for a fact that people used their brains to acquire the knowledge and skills required to design the photocell, the ambient light sensor, and the coolant temperature sensors. In a similar way, our amazing brain and its astounding capabilities must have been designed by someone who is tremendously powerful, knowledgeable and wise. Remember—the odds of a simple man-made sensor being made by someone without the required knowledge and ability are negligible. So how about the extremely complex, living human brain? In fact, the more we realize how wonderful the brain is, the more we can conclude that its Maker can only be someone with great knowledge, power, and wisdom. Now let us explore the hidden reality behind the nervous system.

- *What about the nervous system?*
- *Who designed the nervous system in our body?*
- *Who designed our body?*
- *Who enables us to use it?*
- *Is it the One who allows us to breathe every moment without effort, the one who makes our eyes see?*
- *Isn't it the same One who enables us to be able to read and decipher the letters on this page and understand their meanings?*

Brain: Water can't read and understand, but I can. How come? I am mostly made of water.





Fourth Dimension : Meditative Thinking

REFLECTING ON THE ATTRIBUTES OF THE MAKER

We concluded that neither nature nor chance can be the cause of our brain and nervous system's abilities to control our bodies. How does it happen then? What is the Hidden Hand behind the intricately inter-connected and well-organized activities in our body? How do we get to know Him and be sure about His existence?

Recall- the nervous system is comprised of the brain, spinal cord and nerves. It is not an isolated system. Rather, it is well-connected to the entire body. It is also linked to the rest of

the world; it is connected to sunlight, air, food, water and therefore to the sun, sky, seas, plants, and animals. In many ways, your body and therefore your brain and nervous system are connected to the entire universe. This intricately connected and well-functioning brilliant system is designed to control and coordinate all of our bodily functions to achieve perfect balance- not only within the body but also in correlation with the external world. How does all this take place? Can blind and ignorant neurons perform such incredible tasks? How about the individual atoms or molecules that

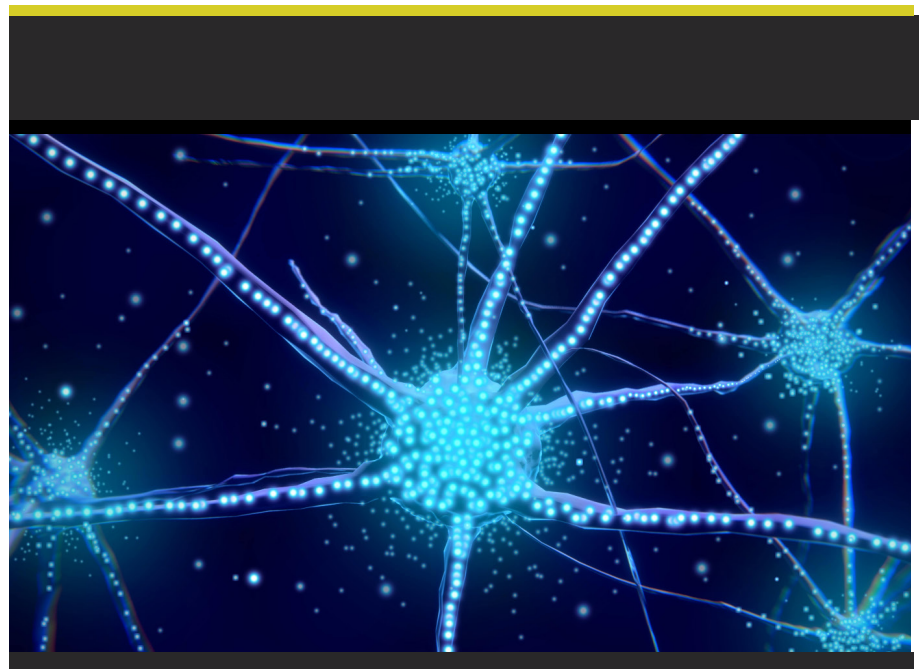
100% free 5D thinking materials are available at www.5dthinking.org

make up these neurons? The answer is clear.

Neurons and their atoms and molecules are not qualified to perform such amazing acts. In fact, cells have neither the knowledge, nor the wisdom or power required to understand such an elegant and wise system- let alone produce it. Similarly, we cannot ascribe these extraordinary capabilities to the molecules, atoms, and subatomic particles of the nervous system because they do not have the necessary knowledge and power. Otherwise, we would have to claim that the neurons- and their molecules and atoms from which they are made- are more intelligent than all scientists because they achieve things that science is unable to do. In reality, rather than being an agent itself, our nervous system works as a platform through which the Hidden Power controls and coordinates our body.

As we saw in the third dimension, the perfect creation of the nervous system within the human

body could not have occurred by itself nor can it be the result of material causes, chance, or nature. The nervous system is evidence to the existence of great knowledge, wisdom and power. If someone has knowledge but no wisdom then even if he could make the nervous system, he could not possibly integrate it into the body in which it exists. The harmonious existence of the nervous system within the human body is a clear indication to the presence of wisdom. In addition, there is a need for a tremendous power that controls all the relationships among these numerous components within the brain, body and the world outside. Indeed, your whole body is itself a complete system composed of many sub-systems (like the nervous, muscular, skeletal and digestive systems) all operating harmoniously with one another and connected with the external world. Furthermore, these systems need to be aligned with consciousness and other spiritual faculties to facilitate your rich human experience.



In short, our body systems work in connection with many other complex systems in the universe. Thus, it is reasonable to assume that the nervous system can only be the work of the One who has the knowledge, wisdom, power and will to create, control and sustain the universe's interconnected systems. It can only be the work of the One who makes millions of specialized neurons communicate with each other to keep the body functioning optimally within its surroundings. It can only be the work of the One who makes it possible for each human cell to be customized to the role it has been assigned to.

Who is the Maker of our nervous system? What can we know about its Maker? We know that actions often speak louder than words. The

Maker of the nervous system speaks through His actions which are full of meaning, benefit and wisdom. Now, let us re-examine our nervous system and try to find out why it was granted to us by The Most Generous Maker.

Remember that your nervous system is the circuitry through which the inner workings of your body are monitored and controlled. It is also used to communicate with the external world. In fact, your nervous system is a very beneficial tool that your Maker has given to you as a precious gift to experience the miracles of life. If this makes sense to you so far, then you are now ready to discover the hidden message that follows.

All-Powerful

All-Wise

All-Seeing

Most Kind

Most Merciful

All-Knowing



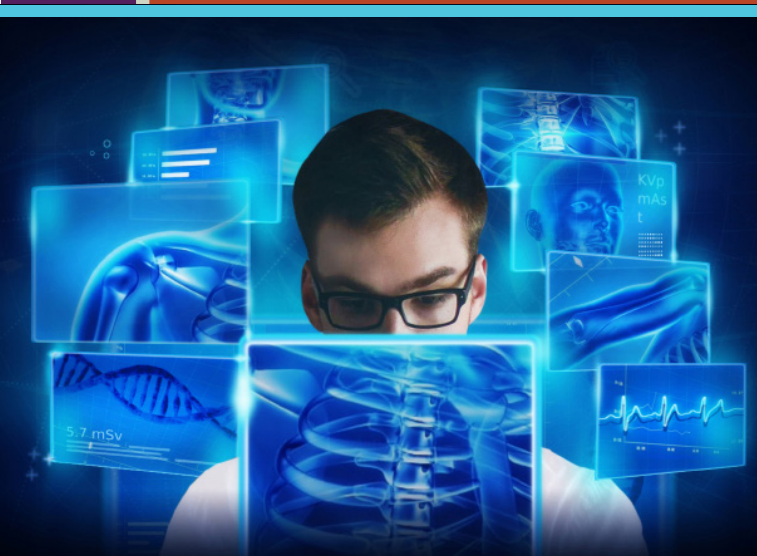
As we discussed above, it is clear that the Maker of our nervous system can only be one who has the wisdom, ability and power to create and sustain it in harmony with the body, the world and the universe. It is also clear, that it is way beyond our knowledge and power to create our own nervous system, maintain or even control it. Indeed, the Maker of the nervous system must have the infinite knowledge and power to create it and sustain it. In addition, since our nervous system is connected to the entire universe, its Maker must be aware of everything that we experience through it. The Maker must know of the need to balance all the functions of our body so that they remain in sync with each other. The giving us such a precious gift shows that The Maker is very generous and kind. Indeed, since no power is

above the Infinite Power, He has no obligation to make our nervous system- yet he does.

Therefore, we can conclude that He creates nervous systems for living beings purely out of His mercy. His mercy is so vast, that just like He creates the nervous system, He also creates all the things that are needed for life. Through the perfection of the nervous system, He reveals to us His infinite knowledge, wisdom, and power. He communicates His kindness and generosity to us through the granting of such a precious system free of charge. Indeed, our nervous system is evidence that our Maker is All-Seeing, All-Knowing, All-Powerful, All-Wise, Most-Merciful and Most-Kind. The more we study the nervous system, the more we can learn about its glorious and merciful Maker.

Fifth Dimension : Moral Thinking

REFLECTING ON THE ATTRIBUTES OF THE MAKER



Reflect for a moment on the value of your brain and nervous system. What would happen to you if your nervous system were faulty?

Our Maker created us with such a brilliant nervous system that it seems as if it functions on its own. It makes connections with the nervous systems of other beings through communication of the senses. However, as we learned in this chapter, our nervous system- in connection with other bodily systems- needs to be sustained and maintained every moment. We have many needs but no knowledge or power to take care of those needs on our own.



How did you get your nervous system? How much did you pay for it? Of course, no one can purchase a nervous system. Even if all the scientists in the world combined their knowledge together, they would not be able to recreate the human nervous system in all its magnificence. If we assume that scientists actually succeed in making one, it would take great effort and would surely cost a fortune. It is clear that the One who created

1. *Remembrance means realizing that there is a Creator of this system and that this creator is All-Knowing, All-Wise, All-Powerful, and All-Merciful.*

2. *Reflection means meditating upon the miraculous creations we discover- such as the nervous system- by observing and exploring the world.*

3. *Gratitude means being thankful to the wise and merciful Creator for such a wonderful blessing. As a result, the grateful does not waste the gift, but instead honors it and uses it in a beautiful way.*

you has blessed you with a healthy and very precious nervous system. You can experience the wonders of the world by using this miraculous gift. Your nervous system is made especially for you by the Most-Generous and the Most-Merciful.

Do you remember the painful story of Isaac who did not feel any pain? Feeling pain is just one of the many beneficial outcomes of the nervous system. It is not possible to live without a functioning nervous system. Even a partial defect in this system will result in serious consequences. People with Isaac's condition have a short life expectancy because they are incapable of feeling whether their bodies are experiencing damage from wounds, illness or accidents. The good news is that Isaac's condition is very rare- only 20 cases have been reported in scientific literature.

Now that we have learned about the value of our nervous system and about its Kind Maker, should we not pay our due respect for this precious gift?

Indeed, we should pay our dues to the One who created the universe in connection with our brain and nervous system so that we may live a full and fulfilling life. We should pay our dues to the One who does not ask for payment from us. He does not need anything from us. Everything belongs to Him. The True Bestower of Bounties wants three things from us: remembrance, reflection, and gratitude.



Exercise keeps our nervous system healthy by releasing a chemical in the brain called serotonin.

A healthy diet full of fruits and vegetables nourishes our body and helps build healthy nerves and brain tissue.

Staying busy and keeping our brain active helps us deal with life's challenges in a healthy way.

Indeed, the Creator wants appreciation through our good words and good deeds. He wants us to remember that He is the One who continues to bless us with a healthy nervous system and allows it to work in marvelous ways. We should always reflect on such a perfect nervous system in order to understand its value and be grateful to our Creator.

There are many ways, we can show gratitude to the One who grants us such a flawless nervous system. We need to realize that this system is given to us as a trust. Remember, we have seen that we cannot even control it. This means we do not own this system because if we owned it, then its total control would be

in our hands. Since this system is entrusted to us, we need to take good care of it and use it in accordance with the purpose of its creation.

Part of taking good care of this gift is to refrain from laziness and choose to exercise. Exercise keeps our nervous system healthy by releasing a chemical in the brain called serotonin. Serotonin is designed to make us feel happy, relax our muscles and keeps stress at bay. A healthy diet full of fruits and vegetables nourishes our body and helps build healthy nerves and brain tissue. Staying busy and keeping our brain active helps us deal with life's challenges in a healthy way.



Since our nervous system has been entrusted to us by our Maker, we need to be mindful of Him when using it. He wants us to use it for performing good actions. He wants us to abstain from using it to do evil. He wants us to know that He sees everything we choose to do with our nervous system. He is aware of every thought, intention and action. Consider seemingly simple tasks that we often take for granted, such as opening our eyes in the morning, stretching and being able to get out of bed, unassisted. Aren't they beautiful gifts that deserve much appreciation? Consider also all the pervading beauty in the world. Our Maker has created it all for us and He gave us the eyes and nervous system to see, feel and experience it. Therefore, next time you happen to look up at the beautiful blue sky or the pink sunset, remember that it is your Maker who

has adorned it for you to enjoy. He creates beautifully and He makes us enjoy this beauty so that we may appreciate it. He also makes us dislike the passing of beautiful things and long for eternal beauty. In this way, He makes us understand that we have not been created for this fleeting world alone. Rather, we are destined for eternal life in the permanent world of the hereafter. Life in this world is only temporary. It is only a short part of our journey. Indeed, death is the gate to the eternal realm of the hereafter.

Remember that our Maker is very Kind and Generous. For sure, such endless mercy will not make death the end of everything. Our birth into this world, was the end of life in our mother's womb. Similarly, when we die in this world, we will be 'born' into the next world.

Indeed, our Maker's mercy is infinite- it does not end with death. His eternal and endless mercy manifests itself forever. Indeed, billions of stars and galaxies are clear evidence that His realm is not limited to our planet. Also, the fact that living things die yet life carries on is evidence that He is the source of life, He grants life and has the power to sustain it. Since this granter and sustainer of life has designed us to desire an unending life, surely He will give us eternal life. Our merciful Creator gave us a nervous system so precious that we didn't even know we nee-

ded it. Surely, if He gave us the need for immortality and happiness after death, it means that He will grant them to us. So, let us be grateful to Him and appreciate His precious gifts by using them in accordance with the purpose of their creation: to know, praise and glorify their Maker and to make Him known. Know also, that the more we show appreciation for His gifts, the more He will grant us countless gifts from His infinite treasures in another world. He will grant us happiness forever.



TEST YOUR KNOWLEDGE

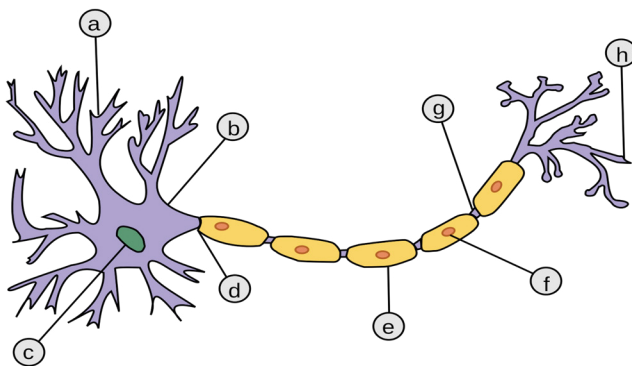
1. UNDERSTANDING SCIENCE TERMS

Complete the following sentences with a word or words from the Science Terms that will make the sentence correct.

Nervous System *Central Nervous System* *Myelin* *Dendrites* *Synaptic Terminals*
Vertebral Column

1. The _____ is made up of the brain and spinal cord.
2. The spinal cord is surrounded by a bony structure called the _____.
3. _____ is a fatty substance that allows an electrical signal to travel with ease along a nerve cell.
4. The _____ is comprised of the brain, spinal cord and nerves.
5. _____ are branch-like structures found on a nerve cell that receive messages from neighbouring cells.
6. _____ release chemicals called neurotransmitters.

Label the following diagram:



II.CHECKING FACTS

Determine whether each of the following is true or false.

1. Unconscious tasks are those that you have to think about like reading, writing and speaking. _____
2. A photocell detects changes in light levels. _____
3. Man-made sensors only partially resemble to nervous system. _____
4. Nervous system depends on various systems in the universe. _____
5. Myelin is a fatty substance that prevents electrical signals from travelling along a nerve cell. _____
6. Nervous system is granted amazing properties to perform certain works. _____

III.UNDERSTANDING CONCEPTS

Write a short answer for each question or statement.

1. List two examples of voluntary tasks that your nervous system appears to control.

2. How does the body respond to heat?

3. How do you know that the nervous system must be the work of someone with Infinite Power?

4. What are the intended benefits of reflexes?

5. List two hidden messages in the nervous system from its Maker.

6. Why it is not reasonable to think that neurons are running the nervous system?

IV.APPLYING CONCEPTS

Write a paragraph to answer each question.

1. How are the sensors in our body different from the sensors found in a car?

2. Describe how your daily life would be different if your nervous system could not detect changes in your external environment. (Please specify the changes)

3. The One who creates the nervous system has to be the Creator of the whole universe. Why? Explain.

4. How can you show your gratitude to the One who granted you the precious gift of controlling and coordinating the processes in your nervous system?

5. Reflect on the reasons why the ability to feel pain is important. What is the value of being able to detect pain through our nervous system?

6. Why do you think it is not reasonable to believe/consider that the nervous system came into existence by chance?



V. THINK-THANK GAME

In this “think-thank” game, we want you to think about the nervous system and give thanks to its Maker. We also call it the “play to praise” game. The goal of this game is to think of at least five things about the nervous system that you are thankful for.

Number of players: At least two.

Directions:

Player 1 repeats an appreciation phrase loudly and quickly. Player 2 responds, without pausing, with something to be thankful for. This is repeated five times.

To win:

Player 2 needs to respond five times (without pausing) with different things about the nervous system to be thankful for in order to win the game.

Here is an example of two rounds of this game:

1. Player 1 repeats the appreciation phrase loudly and quickly. For example: “Thanks to the Maker of the nervous system.”
2. Player 2 responds, without pausing, with something about the nervous system to be thankful for. For example: “For making the nervous system feel pain.”
3. Player 1 repeats the appreciation phrase again loudly and quickly. For example: “Thanks to the Maker of the nervous system!”
4. Player 2 responds, without pausing, with another thing about the brain to be thankful for. For example: “For making our nervous system manage reflexes!”

This should be continued for another three rounds until Player 2 wins or loses.

