

Neurospiritual

This pamphlet explains how the secret to overcoming an addiction is activating your dopamine pathway with spiritual desires and activities!



The human brain is not built like the frog's, who sits and waits for things to come to him!

Your brain has a built-in pursuit mechanism!



The brain is the most complex organ in the human body. It has many different functions that help ensure our survival.

One of these is to help code things in our environment as either good for us or bad. The dopamine pathway of the brain helps to do this by rewarding us for interacting with things that are good for us.

Tiffany Rogers



1. The human _____ is not built like the frog's, who sits and waits for things to come to him! Your brain has a built-in _____ mechanism!

brain pursuit

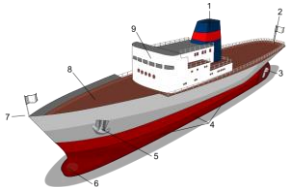
2. The _____ is the most complex organ in the human body. It has many different functions that help ensure our _____.

One of these is to help code things in our environment as either good for us or bad. The _____ pathway of the brain helps to do this by _____ us for interacting with things that are good for us.

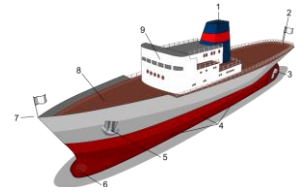
Tiffany Rogers

brain survival dopamine rewarding

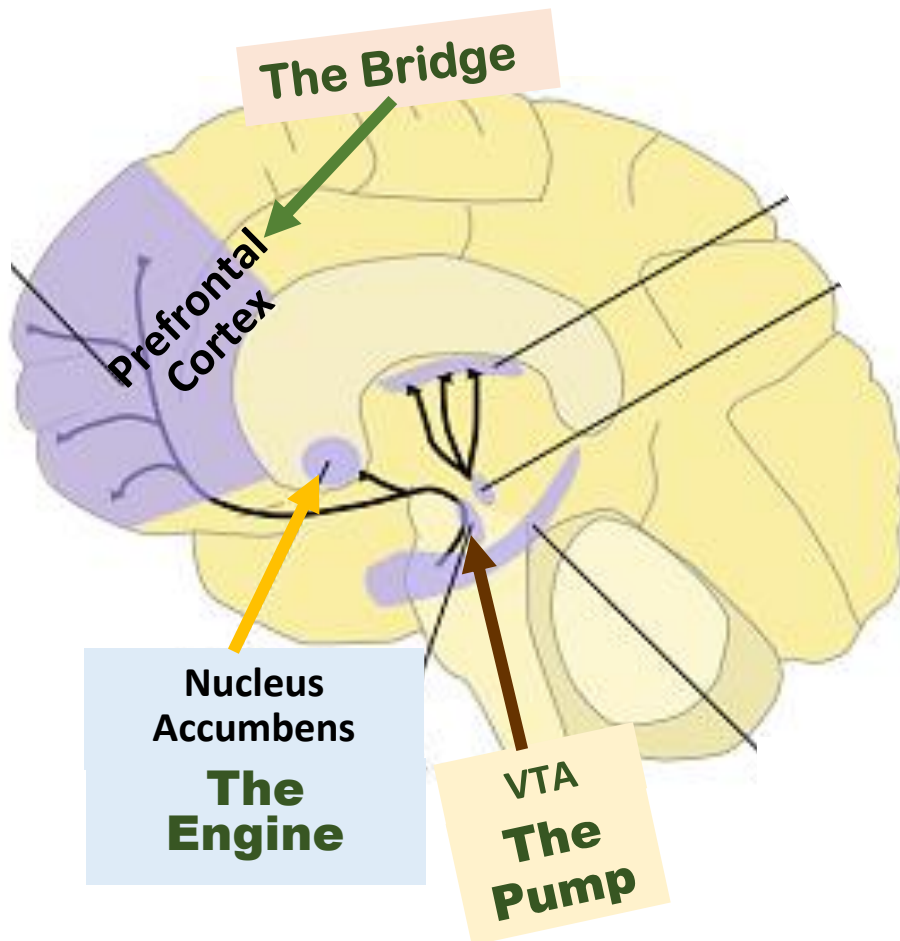
Dopamine Pathway Hijack



Think of your reward (dopamine) pathway as a ship having a fuel pump, engine and bridge (main deck):



Your reward pathway begins at the ventral tegmental area (VTA). It functions like a ship's fuel pump. When you see something you would like to have, do or accomplish, it manufactures the dopamine and sends the dopamine signal to the nucleus accumbens (the engine).



The nucleus accumbens functions like a ship's engine. When it receives the dopamine signal, it generates motivation and attention to help you accomplish the goals you choose.

Then, there is the prefrontal cortex, which is responsible for judgment, decision-making, perspective-taking, and self-regulation. The prefrontal cortex, like the bridge of a ship, steers your behavior.

Neuroscientist Dr. Marc Lewis (adapted)



1. Your reward pathway begins at the _____
_____ (VTA). It functions like a ship's fuel pump. When you see something you would like to have, do or accomplish, it _____ the dopamine and sends the _____ signal to the nucleus accumbens (the engine).

ventral tegmental area manufactures dopamine

2. The _____ functions like a ship's engine. When it receives the dopamine signal, it _____ and attention to help you accomplish the goals you choose.

nucleus accumbens generates motivation

3. Then, there is the _____, which is responsible for _____, decision-making, perspective-taking, and self-regulation. The prefrontal cortex, like the bridge of a ship, _____ your _____.

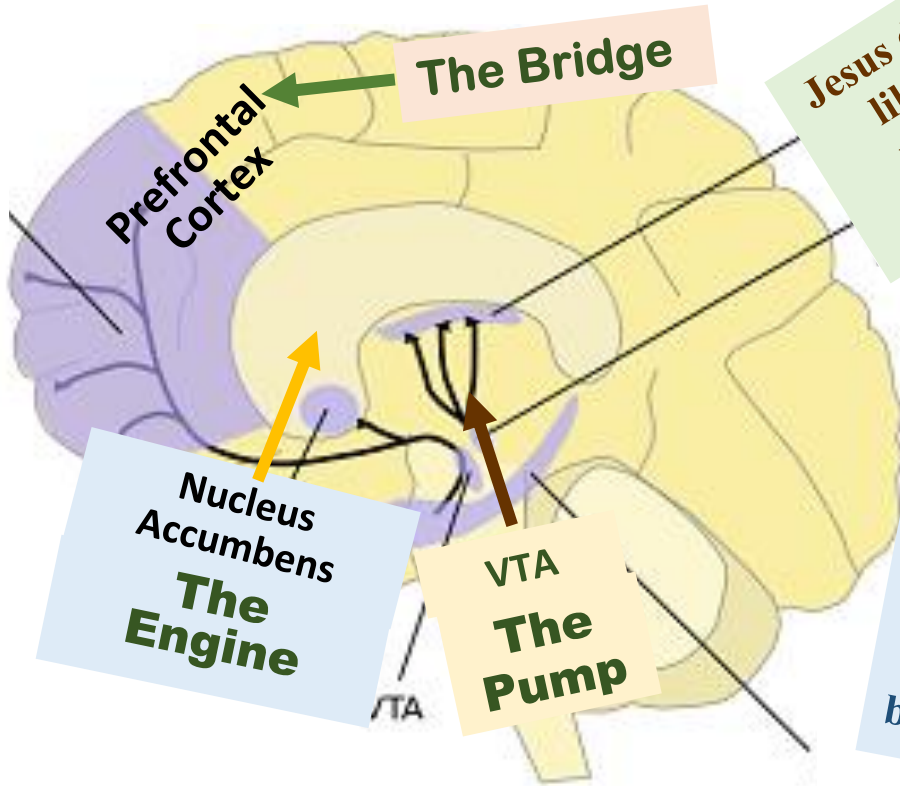
Neuroscientist Dr. Marc Lewis (adapted)

prefrontal cortex judgment steers behavior

How the dopamine pathway works:

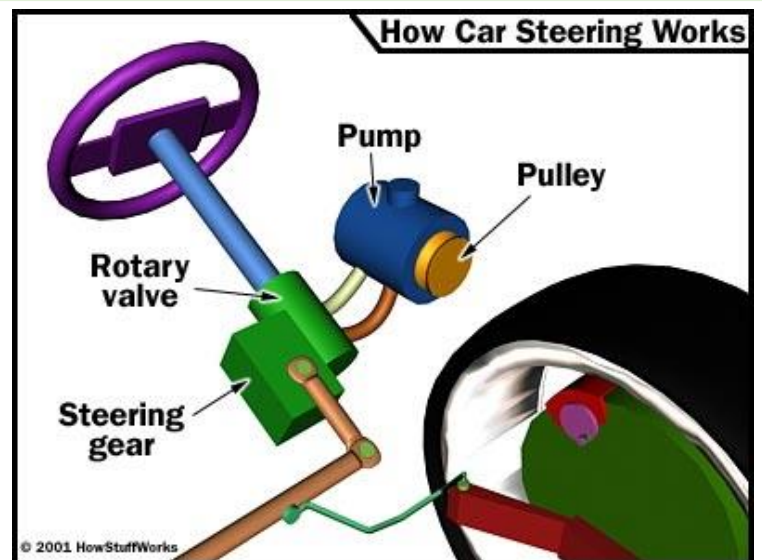
Jesus invented this smart device called the human brain, and He knows we must desire God's blessings to receive them.

Jesus designed into the brain a function like a car's power steering system, which is activated the moment the steering wheel is touched and turned.



Likewise, asking, seeking and knocking activates our VTA to manufacture dopamine and send it up to the nucleus accumbens (NA). Then the NA generates a strong force in our mind that sharpens our focus and pushes our body toward the desired goal!

The power steering system of your car is activated in the same way your dopamine pathway is activated. At your command, a pump is activated to help you move in the direction of your desire.





1. Jesus invented this smart device called the human brain, and He knows we must _____ God's blessings to _____ them.

desire receive

2. Likewise, asking, seeking and knocking _____ our VTA to _____ dopamine and send it up to the nucleus accumbens (NA). Then the NA _____ a strong force in our _____ that sharpens our _____ and pushes our body toward the desired goal!

activates manufacture generates mind focus

3. The power steering system of your car is _____ in the same way your _____ pathway is activated. At your command, a _____ is activated to help you move in the direction of your _____.

activated dopamine pump desire



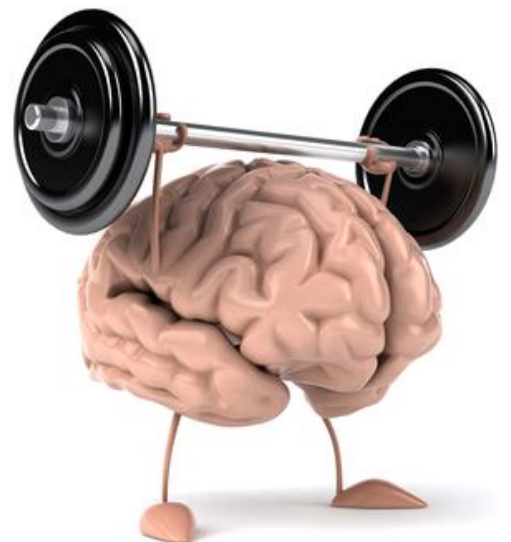
The rise of dopamine levels could also represent anything new or novel, because dopamine loves novelty. A new car, a just released movie, the latest gadget. We're all hooked on dopamine.

Free Medical Education (adapted)

The secret to overcoming an addiction is to fill your dopamine pathway with spiritual thoughts and activities.

“For those who live according to the flesh set their minds on the things of the flesh, but those who live according to the Spirit, the things of the Spirit. For to be carnally minded is death, but to be spiritually minded is life and peace” (Romans 8:5,6).

“...Exercise yourself toward godliness. For bodily exercise profits a little, but godliness is profitable for all things...” (1 Timothy 4:7,8).





1. The _____ of _____ levels could also represent anything _____ or novel, because dopamine loves novelty. A new car, a just released movie, the latest gadget. We're all hooked on dopamine

rise dopamine new

2. The secret to _____ an _____ is to _____ your dopamine pathway with _____ and activities.

overcoming addiction fill spiritual thoughts

3. "For those who _____ according to the flesh _____ their _____ on the things of the flesh, but those who live according to the _____, the things of the Spirit. For to be _____ is death, but to be _____ is life and peace" (Romans 8:5,6).

live set minds Spirit carnally minded spiritually minded

The normal pattern of dopamine release looks something like a roller coaster, because in biology what goes up must come down.



Another secret to overcoming an addiction is to ask for the Holy Spirit's help to train your dopamine pathway to be more spiritually minded.

A goal to work toward could be like this man who “for joy” gave up all he had for spiritual “treasure.” “Again, the kingdom of heaven is like treasure hidden in a field, which a man found and hid; and for joy over it he goes and sells all that he has and buys that field” (Matthew 13:44).

The Apostle Paul left us a good example of a spiritually minded dopamine pathway:

“But what things were gain to me, these I have counted loss for Christ. Yet indeed I also count all things loss for the excellence of the knowledge of Christ Jesus my Lord, for whom I have suffered the loss of all things, and count them as rubbish, that I may gain Christ” (Philippians 3:7,8).



1. The normal pattern of _____ looks something like a roller coaster, because in biology what goes up must come down.

dopamine release

2. Another secret to _____ an _____ is to _____ for the _____ help to train your dopamine pathway to be more spiritually _____.

overcoming addiction ask Holy Spirit's minded

3. A goal to work toward could be like this man who "_____ gave up all he had for _____ "treasure." "Again, the kingdom of heaven is like treasure hidden in a field, which a man found and hid; and for _____ over it he goes and sells _____ that he has and buys that field" (Matthew 13:44).

for joy spiritual joy all

4. The Apostle Paul left us a good example of a _____ minded dopamine pathway:

"But what things were _____ to me, these I have counted _____ for Christ. Yet indeed I also count all things loss for the excellence of the knowledge of Christ Jesus my Lord, for whom I have suffered the loss of all things, and count them as _____, that I may _____ Christ" (Philippians 3:7,8).

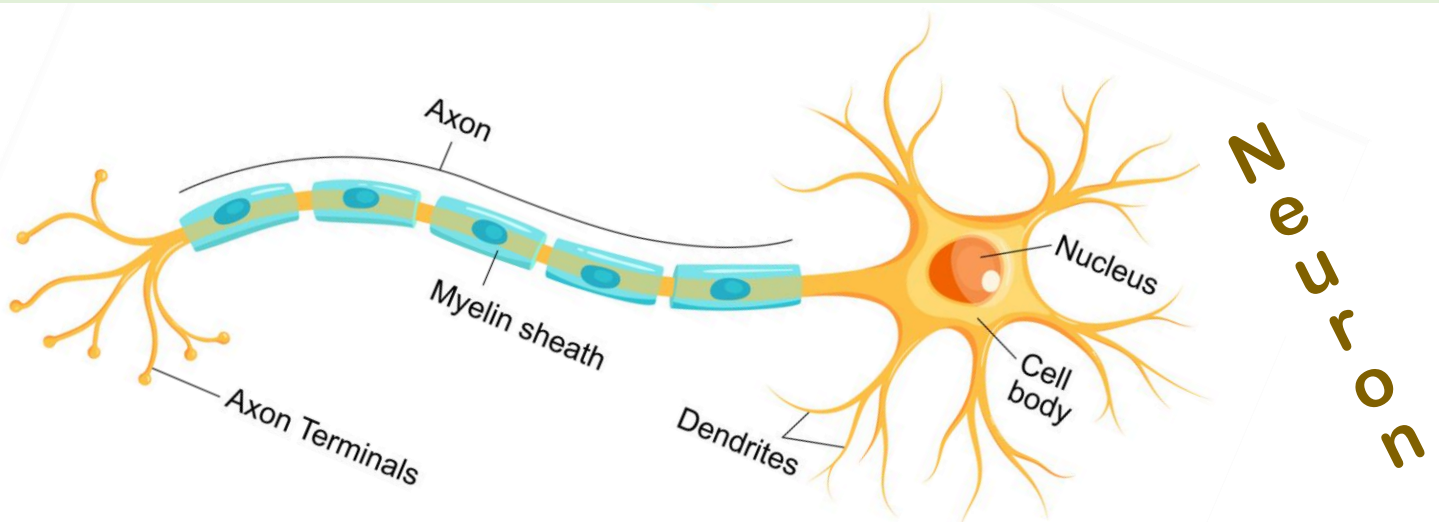
spiritually gain loss rubbish gain



**Neuron
communication is
like people
communicating with
each other.**

We use our mouths to speak and our ears to receive those messages. Our voices usually convey the message between one person's mouth and another person's ears. Dr. Tiffany Rogers

Brain scientists agree that there are 16 billion neurons in the prefrontal cortex and 450,000 neurons in the dopamine pathway. Scientists set the total number of neurons in the brain at 86 billion.



Neurons send electrical signals from one end of the neuron to the other. They send chemical messages from one neuron to another.



1. Neuron communication is like _____ communicating with each other.

people

2. We use our _____ to _____ and our _____ to _____ those messages. Our _____ usually convey the _____ between one person's mouth and another person's ears.

mouths speak ears receive voices message

3. Brain scientists agree that there are _____ billion neurons in the prefrontal cortex and _____ neurons in the dopamine pathway. Scientists set the total number of neurons in the brain at _____ billion.

16 450,000 86

4. Neurons send _____ signals from one end of the neuron to the other. They send messages from one neuron to another.

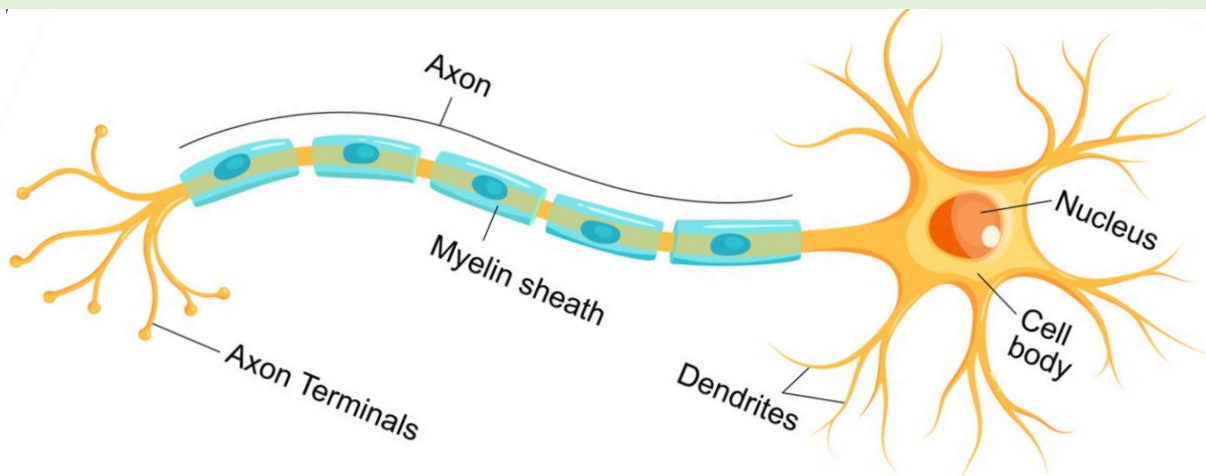
electrical chemical



A group of numerous neurons will work together to enable you to perform the “works of the flesh” or grow “fruit of the Spirit.”

“Now the works of the flesh are evident, which are: adultery, fornication, uncleanness, lewdness, idolatry, sorcery, hatred, contentions, jealousies, outbursts of wrath, selfish ambitions, dissensions, heresies, envy, murders, drunkenness, revelries, and the like...” (Galatians 5:19-21).

“...The fruit of the Spirit is love, joy, peace, longsuffering, kindness, goodness, faithfulness, gentleness, self-control...” (Galatians 5:22,23).





1. A group of numerous _____ will work together to enable you to _____ the “works of the flesh” or _____ “fruit of the Spirit.”

neurons perform grow

“Now the _____ of the _____ are evident, which are: adultery, fornication, uncleanness, lewdness, idolatry, sorcery, hatred, contentions, jealousies, outbursts of wrath, _____ ambitions, dissensions, heresies, envy, murders, _____, revelries, and the like...” (Galatians 5:19-21).

works flesh selfish drunkenness

Name three of the “fruit of the Spirit” in Galatians 5:22,23 that you struggle with?

Your brain has 86 Billion Neurons. Our study is limited to the dopamine chemical messages and the neurons that carry out neuroplasticity (learning new skills).



An easy way to think of how neurons send and receive signals, is to imagine baseball players throwing a baseball around the field.

Each player represents a neuron.

The baseball represents a dopamine message as it is sent from one neuron to another.



Axon

One end of the neuron (dendrite) receives a chemical message from another neuron (axon).

That dendrite then sends an electrical signal to its opposite end (axon).

Then the axon sends a chemical signal to another neuron (dendrite).

This happens at high speed as a group of numerous neurons work together.



Dendrite

Among many other tasks, the neurons work together to activate your dopamine pathway and to perform neuroplasticity, as new skills are learned and perfected.



1. Your brain has ____ Billion Neurons. Our study is limited to the _____ chemical messages and the neurons that carry out _____ (learning new skills).

86 dopamine neuroplasticity

2. An easy way to think of how neurons send and _____ signals, is to imagine baseball players _____ a _____ around the field.

receive throwing baseball

3. Each player represents a _____.

neuron

4. The baseball _____ a dopamine message as it is _____ from one _____ to another.

represents sent neuron

5. One end of the neuron (_____) receives a chemical message from another neuron (_____).

dendrite axon

6. That dendrite then sends an _____ signal to its opposite end (axon).

Electrical

7. Then the axon sends a _____ signal to another neuron (dendrite).

chemical

This happens at high speed as a group of numerous _____ work together.

neurons

8. Among many other tasks, the _____ work together to _____ your dopamine pathway and to perform neuroplasticity, as new skills are _____ and perfected.

neurons activate learned

Numerous neurons work together in groups to perform spiritual tasks like these!



“But also for this very reason, giving all diligence, add to your faith virtue, to virtue knowledge, to knowledge self-control, to self-control perseverance, to perseverance godliness, to godliness brotherly kindness, and to brotherly kindness love. For if these things are yours and abound, you will be neither barren nor unfruitful in the knowledge of our Lord Jesus Christ.” 2 Peter 1:5-8



Axon

“This I say, therefore, and testify in the Lord, that you should no longer walk as the rest of the Gentiles walk, in the futility of their mind, having their understanding darkened . . . who, being past feeling, have given themselves over to lewdness, to work all uncleanness with greediness. But you have not so learned Christ . . . put off, concerning your former conduct, the old man which grows corrupt according to the deceitful lusts, and be renewed in the spirit of your mind, and that you put on the new man which was created according to God, in true righteousness and holiness.” Ephesians 4:17-24



Dendrite



1. Numerous _____ work together in groups to perform _____ tasks like these!

neurons spiritual

2. “But also for this very reason, giving all _____, add to your faith virtue, to virtue knowledge, to knowledge _____, to self-control perseverance, to perseverance godliness, to godliness brotherly kindness, and to brotherly kindness love. For if these things are yours and abound, you will be neither barren nor unfruitful in the knowledge of our Lord Jesus Christ.” 2 Peter 1:5-8

diligence self-control

3. “This I say, therefore, and testify in the Lord, that you should no longer walk as the rest of the Gentiles walk, in the futility of their _____, having their understanding darkened . . . who, being past feeling, have given themselves over to lewdness, to work all uncleanness with greediness. But you have not so _____ Christ . . . put off, concerning your former conduct, the old man which _____ corrupt according to the deceitful lusts, and be _____ in the spirit of your _____, and that you put on the new man which was created according to God, in true righteousness and holiness.” Ephesians 4:17-24

mind learned grows renewed mind