### THE SUPER PATCH COMPANY



### The Secret Key to Living Longer

As we age, the inability to stand on one leg for 10 seconds can be linked to something that you once wouldn't have even imagined. With age comes a slow decline in physical and muscle strength. Oftentimes it happens gradually, hence it's not as noticeable. However, research shows that a person in their 50s will begin to feel and notice that their balance and stability are rapidly going downhill along with their cognitive health.

Starting in 2009, research in Brazil was conducted on 1702 volunteers between the ages of 51 and 72. This research focused on simple balance tests. The study participants had an average age of 61 with two-thirds being men. Approximately 1 in 5 subjects failed to balance on one leg for 10 seconds at the initial checkup. Researchers monitored the participants for a

subsequent period of 7 years, during which 123 (7%) of the people being studied died. The proportion of deaths among those who failed the test (17.5%) was significantly higher than those who could balance for 10 seconds (4.5%).

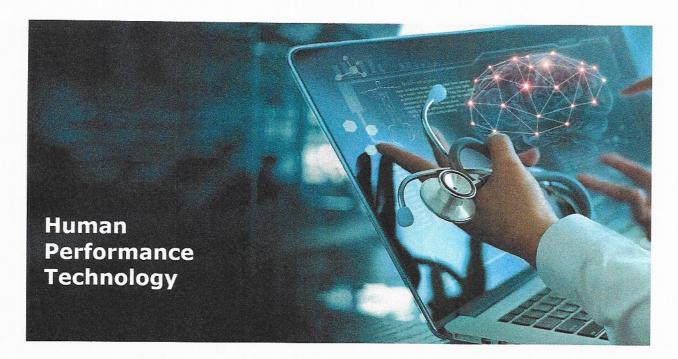
Study participants were told to lift one leg and place the other leg behind, keep their eyes fixed ahead, and arms at their sides. Each volunteer was given three attempts. 1 in 5 volunteers who failed the test were in poorer and older health. 7 years later, when researchers checked on the participants, 7% who had failed the test passed away while this number was only 4.5% among those who passed the test.

The study concluded that for those unable to complete the balance test, there was an 84% higher risk of death from any one cause and this link remained even when other factors including age, sex, BMI, and pre-existing conditions such as coronary artery disease, hypertension, obesity, high cholesterol, and diabetes were taken into account.

### The Super Secret

The technology in VoxxLife's **Super Patches** use a neurohaptic pattern specially integrated into each wellness and performance **Super Patch**. Contact with it triggers a neural response in the brainstem that helps instantly improve balance, and stability, as well as manage pain: no medication needed.

It does this through a special touch-based pattern embedded into each *Super Patch* that activates a specific sequence of receptors in your skin. The skin receptors generate a neural response in the brain that leads to improved neurological function especially balance and stability.



### It starts with a special tactile pattern...

Known as Voxx HPT, this pattern is specially woven into each of our wellness and performance products like our Super Patch. Contact with it triggers a neural response in the brainstem that helps manage pain, as well as improve mobility and balance.

### Trigger a response

When you wear one patches, skin contact with the Voxx HPT pattern triggers a neuro response that sends information from the receptors from your skin to your brainstem.

### Affect the body

After processing that information, the Central Nervous System (CNS) distributes commands to your peripheral nervous system, affecting various functions in your body, from pain regulation to motor control and balance.

### Feel the difference

The effect is instant, ranging from improved balance, mobility and pain management to better energy level and recovery process, ultimately a happier, healthier life.

### The Voxx HPT Super Patch Difference



### WHAT ARE NEURORECEPTORS AND HOW DO THEY WORK?

Neuroreceptors, also known as neuro receptors, neural receptors, and neurotransmitter receptors, are tiny structures formed from protein that are designed to accept information from neurotransmitters. Neurotransmitters are chemical messengers, designed to relay information. Essentially, the neurotransmitter is like a text message, and the neuroreceptor is the app that allows you to receive and read the message. These are crucial elements of the nervous system that make it possible for different parts of the body to communicate with each other and with the brain.

So neuroreceptors process and transfer all kinds of data throughout the body that it receives from neurotransmitters. Usually, the process looks something like this:

- As our senses take in information from the world around us, our nervous system creates specific types of neurotransmitters in our bodies.
- When neurotransmitters encounter a neuroreceptor, they "latch on" to the receptor's protein structure.
- When the transmitter and receptor touch, the receptor is able to identify and recognize what the transmitter "means."

For example, if a neuroreceptor comes in contact with the neurotransmitter called dopamine, it knows that something good has happened, and lets the brain know so it can release chemicals related to feeling pleasure.

After this, the transmitter is released from the receptor, and is usually broken down or recycled by the body.

### **NEURORECEPTORS IN ACTION**

Here's an example: you're playing a game of basketball; you've been passed the ball, and you have a clear path to the hoop in front of you. A moment later, someone from the other team rushes out to intercept you. Your body responds to the new arrival by beginning to produce the neurotransmitter adrenaline. When your neuroreceptors detect the increase in adrenaline, they send signals to your brain about the local increase. Your brain responds by triggering your "fight or flight" response, leading to your heart beating faster to allow your muscles to react more quickly. A moment later, you dash around the defender and shoot the ball at the net. You score! Then the whistle blows, the game pauses, and, no longer required to "fight or flee," your body slows its production of epinephrine and your heart rate returns to its normal rhythm as you take a moment to catch your breath.

Neuroreceptors are very complicated, but their role as launching points for information makes them a crucial element of the nervous system. There are also a lot of neurotransmitters ready to bind to them, allowing for a vast array of responses and controls available to each one.

This is also the basis of our own Human Performance  $Technology^{TM}$  – the idea that information is, in its early

stage, an electric signal in a neuroreceptor, ready to be interpreted by the brain in a way that will be beneficial to the body. This is how we learn about, understand, and react to the world around us, and it is little short of amazing.

# WHAT KINDS OF TOUCH RECEPTORS ARE FOUND IN THE SKIN?

Touch receptors are a group of specialized neurons directly beneath the skin that are largely responsible for our ability to interact with the physical world around us. So it is probably unsurprising that they come in a lot of different shapes and forms. Each type of skin receptor is attuned to a different physical sensation, which is then transmitted to the brain. So what kinds of touch receptors are found in the skin? *Let's get started!* 

The main categories of touch receptor are called **thermoreceptors**, **chemoreceptors**, and **mechanoreceptors**.

**Thermoreceptors** are like the thermometer notification for your skin receptors, designed to detect changes in the temperature of the outer skin layers.

Chemoreceptors cover chemical changes in the body, and are often found in unusual places – for example, chemoreceptors can be specialized to exist in your mouth and contribute to your ability to taste.

**Mechanoreceptors** are the touch receptors found in the skin that respond to mechanical stimulation – for example, physical sensations like holding a ball or pencil.

Of course, these are very broad ways of thinking about our touch receptors; mechanoreceptors, for example, can be further subdivided into four categories that respond to more specific kinds of physical interaction; these touch receptors are called:

**Bulbous corpuscle**, or Ruffini corpuscle, is a specialized mechanoreceptor that activates when you stretch your skin, allowing you to interpret and process actions like flexing your fingers or moving your arms.

**Pacinian corpuscles** are highly sensitive to vibrations, and allow your brain to tell the difference between smooth surfaces and rough ones.

Tactile corpuscles, or Messiner's corpuscles, are sensitive to light touches, only working up to a certain strength or

frequency; they allow you to feel things like an ant running up your arm, or a light tickle.

Merkel nerve endings work best to tell you about the pressure and location of objects you interact with; for example, you can discover that a particular rock is both solid and sharp because of these activated endings.

Every single touch receptor in your skin is attuned to a specific kind of stimulus; together, they come together to give you all the information you need about the physical world around you.

We use HPT (Human Performance Technology) to stimulate these receptors and generate a specific kind of response in the brain that targets our cognitive networks, with the result being increased focus and reduced stress. After all, your brain receives countless signals on a constant basis from your sense of touch, and the ability to manipulate these signals on a deeper level is a huge leap forward for science, technology, and wellness!

### WHAT ARE TOUCH RECEPTORS?

Touch receptors are neurons – basic units of the nervous system that send electric signals to other neurons and to the brain, like a long chain of text messages containing crucial information about our activities. These specific receptors are found in the skin, and allow us to fully experience the world through touch. They inform us about our surroundings and protect our bodies from harm by letting us know what's going on around us at the physical level.

### **HOW DO TOUCH RECEPTORS WORK?**

You have many different kinds of touch receptors working just beneath the surface of the skin at all times. Every one, however, features a specialized ending that is designed to detect and respond to different types of physical stimulation.

You need various types of receptors, for example, to tell the difference between being touched on the arm and having your arm exposed to cold winds.

When your touch receptors are activated by physical interaction, they generate something called "action

**potential**," an electrical signal that travels from that receptor to your brain.

The first stop in the signal's journey is the brainstem, which connects the spinal cord to the thalamus (among many other functions). The thalamus is responsible for receiving and sharing most sensory information with the rest of the brain. It's like a Central Station for sensory data! Next, those signals travel to the **somatosensory cortex**, which is the part of the brain that interprets them and lets you know what it is you're feeling.

#### FOR EXAMPLE...

Let's say you're out for a walk, barefoot, and you accidentally step on a rock. A few different touch receptors in your foot will activate and send information up to your somatosensory cortex about what happened.

Your mechanoreceptors will send signals to the cortex, which then interprets the information: "the thing that touched the bottom of the right foot is solid, rough, and sharp." Meanwhile, nociceptors will send a different signal that the cortex will read as "because the object was sharp, there might be some damage to the bottom of the right

foot."6 That "potential damage" signal is then sent to the relevant area of the brain – called the *periaqueductal* gray – which will assess and heal the damage, beginning with sending signals back that cause you to feel pain where the rock struck.

And remember, all of this is happening incredibly fast – there is no delay between when your foot hits the rock and the pain begins! You instantly knew that you'd stepped on a rock and that it hurt.

Touch is an endlessly complicated sense, and that's what makes it so cool to study! For years, Voxxlife has been exploring the way touch receptors and other neurons in the skin communicate with the brainstem. Our Human Performance Technology™ demonstrates that it is possible to stimulate specific patterns and types of receptors in such a way as to induce positive reactions from the brain, including increased focus and reduced stress. Remember: whether you're petting a puppy, getting a hug from a friend, or testing the water to see if it's too hot, your touch receptors are hard at work helping you to experience the world in the best way possible.

## What Does the Technology Do For You?

- Better Stability
- Increased Energy
- Enhanced Pain Management
- Faster Recovery
- Much More!

**Better balance & mobility** Gain the postural stability needed to maintain proper balance and footing for greater range of motion and reduced risk of injury.

**Increased energy** Feel more energized to take on anything—from a challenging hike to a casual walk around town.

**Enhanced pain management** Like the 940 who successfully reduced their foot pain in an independent study of 1,000 participants, Voxx HPT helps you tackle daily routines head on with lasting, all-day comfort.

**Faster recovery** Exercise with the confidence you can push yourself further and recover more quickly—and fully—after every workout.

In short, VoxxLife's Super Patches are essential to improve your day-to-day stress levels, immune health, mobility and in the long run, can even potentially help you live longer. Stability and balance can be taken for granted as we get older, however, VoxxLife's HPT technology is a way to help combat or even slow down the negative effects aging can have on our bodies in relation to stability and balance. Are You Ready To Get Started?



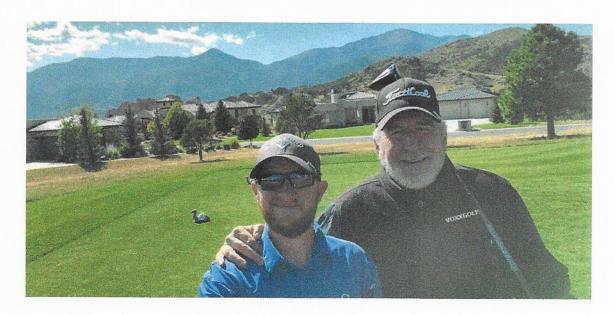
Learn More: <u>WWW.SHAPEUPFORLIFE.COM</u>

Bobby Brown 719-661-5647

E-Email: bobbybrown5245@gmail.com

Independent Associate: 111129320

**VoxxLife: The Super Patch Company** 



These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease."