

Vestibular Function and The Floating Bed™

by Matthew McNatt

The Differences a Floating Bed™ Can Make

Think about it:

- Do you feel overly stressed?
- Do you get frequent headaches?
- Do you feel dizzy or nauseous?

Many of us do, or we know someone who does. Again:

- Have you been diagnosed with an autism-spectrum condition or anxiety disorder?
- Are you plagued by low back pain, muscle spasms, or sciatica?
- Are you clumsy or uncoordinated?
- Are you (re-)learning how to coordinate your movements?

For any of these diverse concerns, a Floating Bed™ may help.

A Floating Bed™ stimulates the vestibular system, a vital component to human well-being.

What's the Vestibular System?

In school, most of us learned about the “five senses”: smell, taste, touch, hearing, and sight. We learned about organs in our bodies that these senses, too: our nose, taste buds, skin, ears, and eyes. Any “sixth sense,” we were led to believe, would be in the domain of the paranormal—the ability to read minds, for instance, or to see dead people.

Even so, everyone has more senses than these basic five: we sense where our bodies are in space (called *proprioception*); we sense a need to be ready to respond to changes in our environment (called *muscle tone*); we even sense, at a very basic level, when we're threatened and need to respond with urgency (called the *vagal sense*).

We sense how our bodies are moving, too (called *kinesthesia*), and we sense when we start or stop moving (called *inertia*). The organs that enable us to sense inertia comprise what we call the “vestibular system.” They're buried deep in the inner ear.

The vestibular system lets us sense when our whole bodies, or any parts of our bodies, go from at rest to moving, or from moving to at rest. The term *vestibular function* refers to how well this vestibular system is working.

When a person's vestibular system isn't working well, stress, headaches, nausea, sensory overload, anxiety, muscle spasm, impaired coordination, and disorientation are common. Regrettably, the contribution that a compromised vestibular system makes to these diverse concerns is frequently overlooked, even by medical doctors.

People are used to thinking in terms of the “five senses.” We have a long way to go before talk of the vestibular system is commonplace. We have a ways to go before the vestibular system itself is fully understood. Scientists continue to make advances in understanding how the vestibular system interfaces with the human lymphatic system and, also, how signals from the vestibular system affect the brain. Two things, however, we can be sure of:

1. Proper vestibular function is central to human health and well being.
2. Simple, subtle changes in vestibular input can net profound, positive results.

Vestibular Function and Balance

The brain uses our vestibular sense, together with the sensations of touch and changes in muscle tone, to perceive the degree to which our bodies or objects in our environment are moving, called *momentum*.

The perception of inertia and momentum help us orient to gravity and achieve physical balance.

Due to the crucial role the vestibular system plays in achieving physical and personal balance, vestibular function is often called our “sense of balance.” Even so, it affects far more than whether we can stand up without falling over. If our vestibular sense is overwhelmed, we may feel light-headed, dizzy, or “out of sorts.”

When we have problems with our vestibular systems, even our lives are likely to get “out of balance,” and *modulation*—how much time, energy, and resources we invest toward our various commitments—will often suffer, too.

Our ability to sense inertia also supports visual stability. When our head moves as we walk, ride on a bumpy road, or grow fatigued toward the end of a long day, our vestibular sense cues our neck and shoulder muscles—and other supporting muscles down to our toes—to help keep our head upright and stable. Without this stability, our head can bob, and we can lose track of what we were focusing on—skipping a line of text while reading or missing a catch while playing ball.

The vestibular sense helps us discern when we’re moving, versus when objects in our environment are moving: it provides a steady frame of reference despite movement. The effects of good, or bad, vestibular function are widespread.

Movement and Vestibular Health

People with vestibular difficulties may move constantly, seemingly unable to slow down, or may hardly move at all.

Since the vestibular system senses when we start moving, stop moving, or change directions, to develop it we obviously have to move. More accurately, we have to move in ways that our brains can make sense of.

Being held safely close to mom in a rebozo or child sling while being jostled about can help a child make sense of random movement. Slow movement, typical in exploratory play, from crawling and

climbing to an adventuresome outing, can help a child make sense of forward-back, side-to-side, and rotational tips.

Moving and stopping, typical in games with elements of surprise, from peekaboo to red-light/green-light, can help a child make sense of linear acceleration and deceleration. The organs of our vestibular system are designed to make sense of these kinds of movements. But today, opportunities for such movement are few.

Insufficient Movement and Vestibular Problems

In our world today, most parents watch over and protect their children with the best knowledge they have. With good motivation and to comply with the law, parents routinely place children in plastic “safety” equipment, which endangers natural sensory development. Children are transported here and there with little sense of safe connection to a parent or control over their motions.

Riding a horse was once a common mode of transportation that taught skills of husbandry and the value of stewardship while integrating tactile, vestibular, kinesthetic, muscle tone, and proprioceptive input. Now, riding a horse is common therapy for children whose need for such input has become glaring enough that doctors write prescriptions for medically necessary hippotherapy; that is, horseback riding.

We don't live in simple times. Toxic chemicals leach from carpets. Petroleum derivatives carry scents in perfumes and air “fresheners.” Pesticides and herbicides blanket our lawns. Strong electromagnetic fields permeate everywhere.

Since it doesn't take many toxins to compromise a developing system—a single, moderate-volume exposure can harm—even children who receive ample opportunities for natural movement are at risk of sensory-motor difficulties. In many ways, our world isn't safe, so we stay inside, while the truth remains: less day-to-day, relaxed movement means less opportunity for healthy vestibular development, or even maintenance of a healthy vestibular system as adults.

The Floating Bed™ and Vestibular Health

It's no wonder why things seem so out of balance. Fortunately, novel opportunities for gentle vestibular input and shared movement are arising to fill the gap. The Floating Bed™, in my opinion, is among the best. In a Floating Bed™, parent and child, therapist and client, friends, or siblings can sit side-by-side, sharing control over one another's motions in a safe environment.

When partners can feel each other's movements, it's easier to connect. In a Floating Bed™, you're already—in a very real, very foundational sense—feeling what the other person feels.

It's no wonder, then, why a Floating Bed™ can help develop emotional connection and shared attention. It can be easier to get a child to attend to what you're presenting when that child already feels connected with you... and safe.

Sitting across a desk or table from your child isn't inherently connective. Sitting on a mattress together may help a child feel connected, but not necessarily safe. Sitting together on a Floating Bed™ can help a child feel both connected and also safe.

The difference between a mattress and Floating Bed™ is similar to the difference between a trampoline and a rocking chair. On a mattress, it's common for people to unconsciously brace themselves for sudden shifts in equilibrium. On a mattress, you feel reverberations from your partner's movements. When your partner moves in a Floating Bed™, your environment shifts as though you had moved in like manner to your partner.

In a Floating Bed™, each person's movements are dampened and, therefore, less likely to startle to someone sharing the bed with you. Each person's movements are also expanded: they become a part of a shared, gradually unfolding three-dimensional adventure, which has to be experienced to be understood.

Vestibular Health and Bonding

We've already noted how common stress, headaches, nausea, sensory overload, anxiety, muscle spasm, impaired coordination, and disorientation are for people with compromised vestibular function.

The Floating Bed™ can also be of help to people with touch or bonding issues. For some people, it's tough to know who is safe to trust and who isn't; to let down their guards; to accept loving touch; to discern when it's appropriate to touch and how; and/or to communicate their comfort limits in clear and appropriate ways.

How can you express love when your gentle touch feel threatening, even painful, to the one you love? This scenario is common for families who have adopted children from foreign orphanages, where the children received little kind, nurturing touch. It's common for families of children with autism-spectrum conditions, too. And it's common in marriage, when one spouse has experienced trauma or abuse.

It can be challenging—to say the least—to figure out ways to help people who are touch-sensitive to bond with those who care for and love them. With a Floating Bed™, however, you can share experience, share closeness, without invading another's space—and, for professionals, without crossing professional boundaries. How?

With its gentle, shared vestibular stimulation, the Floating Bed™ offers an indescribably relaxing, comforting, and unifying experience with no physical touch at all.

Truly, the Floating Bed™ has to be experienced to be believed. Today, you can take steps toward experiencing one yourself; visit <http://www.floatingbed.com> for more information.

For more information the role of the vestibular system in learning and an holistic approach to learning that includes gentle vestibular stimulation, you can also visit <http://www.handle.org/disorders/issues.html>.