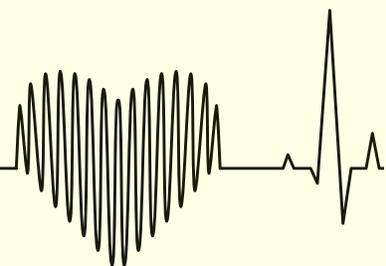


Heart Rate Variability



Did you know that your nervous system controls your heart rate?

It is one of the many smart things that your body does without you having to or put any thought into it. Your nervous system will increase or decrease your heart rate based on the needs of your body - called *heart rate variability (HRV)*.



A high HRV reflects a healthy heart

Having a healthy heart rate is important - you don't want it too fast, and you don't want it too slow. It is providing your vital organs with blood and oxygen that you need to survive. Your heart rate is not at a constant steady 70 beats per minute all day every day; it changes based on whether you are resting or exercising, whether you are happy or angry, nervous or relaxed. These changes in heart rate can be measured by something called heart rate variability or HRV.



What does the research show?

We know now, from a lot of neuroscience research studies, that when your spine is not moving properly, this changes the way your brain can sense what is going on in and around your body and the way it controls your body.¹⁻³ If the joints of your spine are not moving properly (what chiropractors call being subluxated) this may affect how well you can sense what is going on in and around you and how well you can react to your environment. Research has shown that when a chiropractor then gently adjusts these subluxations, it helps the brain to more accurately “see” what is going on in and around the body.

What does the research say about chiropractic care and heart rate variability (HRV)? Researchers have looked at a lot of the studies that have been done on the effects of chiropractic care on HRV and summarised them.⁴ The results show that chiropractic care does affect HRV, and in particular, it seems to increase the healing and calming side of our autonomic nervous system, the parasympathetic nervous system!

In one study,⁵ the researchers got 96 different chiropractors to measure HRV before and after adjustments on 8 different patients and after 4

weeks on 2 of their patients. Altogether, 539 adults had their HRV recorded before and after their adjustments, and 111 adults had their HRV recorded across four weeks of chiropractic care. They found that in both of these groups of adults, there were improvements in their HRV measurements and that in the group that received adjustments over four weeks, these improvements remained constant over that time.

These studies suggest that even just one adjustment can influence an important part of our nervous system that controls our heart rate, which represents how well our body can respond to our environment, and is considered to be a measure of someone’s adaptability and general health. Also, very importantly, in the stressful, fast-paced life we often live these days, chiropractic care appears to increase the “healing and calming” side of our autonomic nervous system.

If you are interested in good health, adaptability and want to respond better to stress, why don’t you consider chiropractic care to make sure that your spine is functioning well so you can operate at your best!

Disclaimer and References

This information is provided for educational purposes only. It is not intended to be professional advice of any kind. Haavik Research Ltd encourages you to make your own health care decisions based on your own research and in partnership with a qualified health care professional.

1. Uthaikhup S, Jull G, Sungkarat S, et al. Arch Gerontol Geriatr 2012;55(3):667-72. doi: 10.1016/j.archger.2012.01.013 [published Online First: 2012/02/22] 2. Haavik H, Murphy B. J Electromyogr Kinesiol 2012;22(5):768-76. doi: 10.1016/j.jelekin.2012.02.012 [published Online First: 2012/04/10] 3. Treleaven J. Man Ther 2008;13(1):2-11. 4. Amoroso Borges BL, Bortolazzo GL, Neto HP. 2018;22(1):203-08. doi: https://doi.org/10.1016/j.jbmt.2017.09.025 5. Zhang J, Dean D, Nosco D, et al. 2006;29(4):267-74. doi: 10.1016/j.jmpt.2006.03.010

- **Dr. Heidi Haavik**
BSc(Physiol) BSc(Chiro) PhD
- **Dr. Kelly Holt**
BSc, BSc(Chiro), PGDipHSc, PhD
- **Dr. Jenna Duehr**
BChiro, BHSc(Nursing), MHSc