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## Introduction:

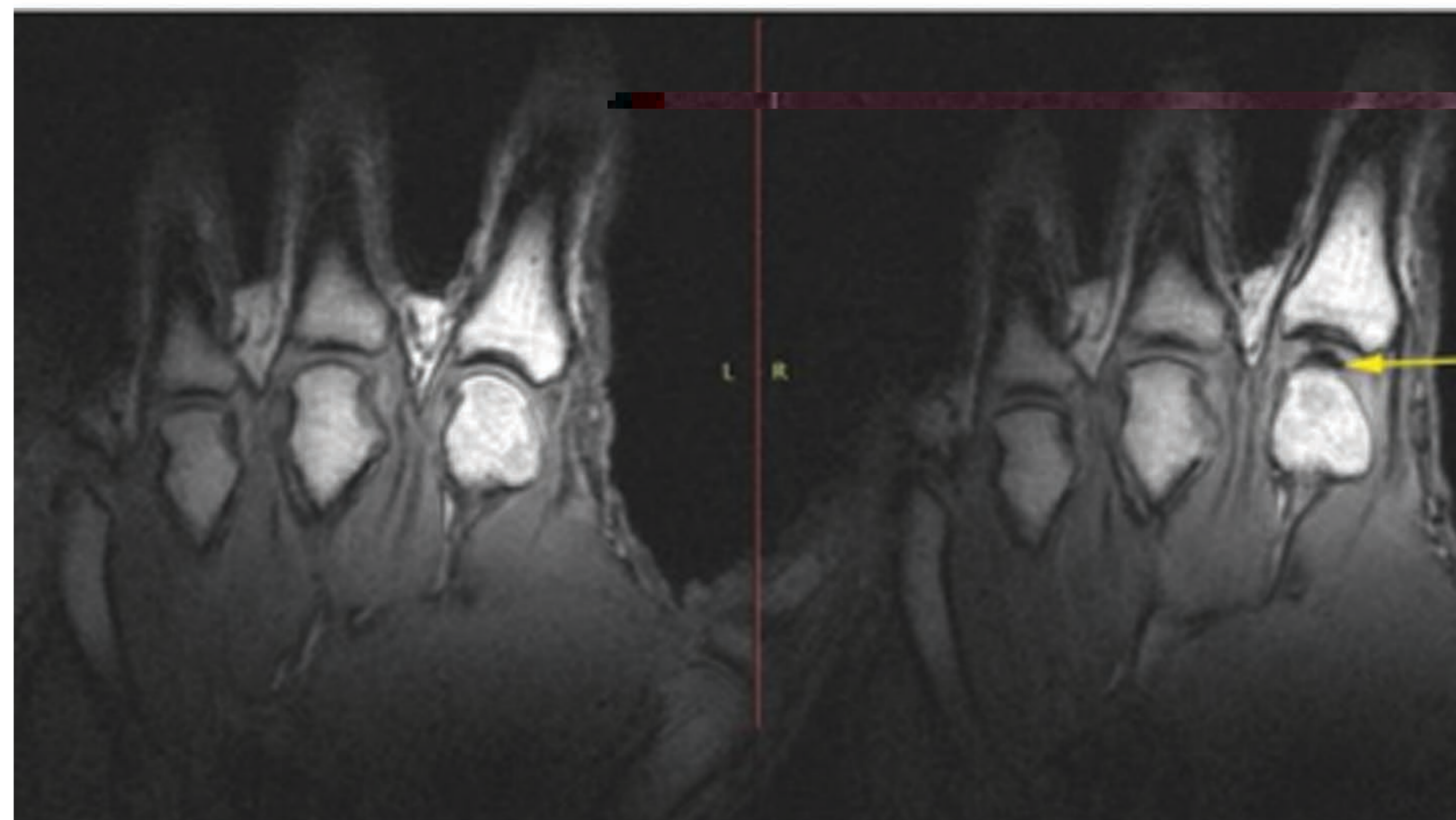
We've heard these medical misconceptions repeated for years, they've been repeated by parents, friends, roommates and even physicians sometimes believe those medical myths. But, according to actual data collected by actual doctors, those myths aren't true.

People believe them because they make "logical" sense and they've been told to them and their parents for so long that they feel true without looking at the actual data.

## Myth #1: Knuckle Cracking Causes Arthritis

Scientists from the University of Alberta made a study called "pull my finger", in their investigation they captured joint cracking by MRI. They found that the sound was associated with the rapid formation of a gas-filled cavity within the synovial fluid.<sup>[1]</sup>

There is no more fluid available to fill the increasing joint volume, so a cavity is created and that event is what's associated with the sound.<sup>[2]</sup>



## Myth #2: We Only Use 10% of Our Brains

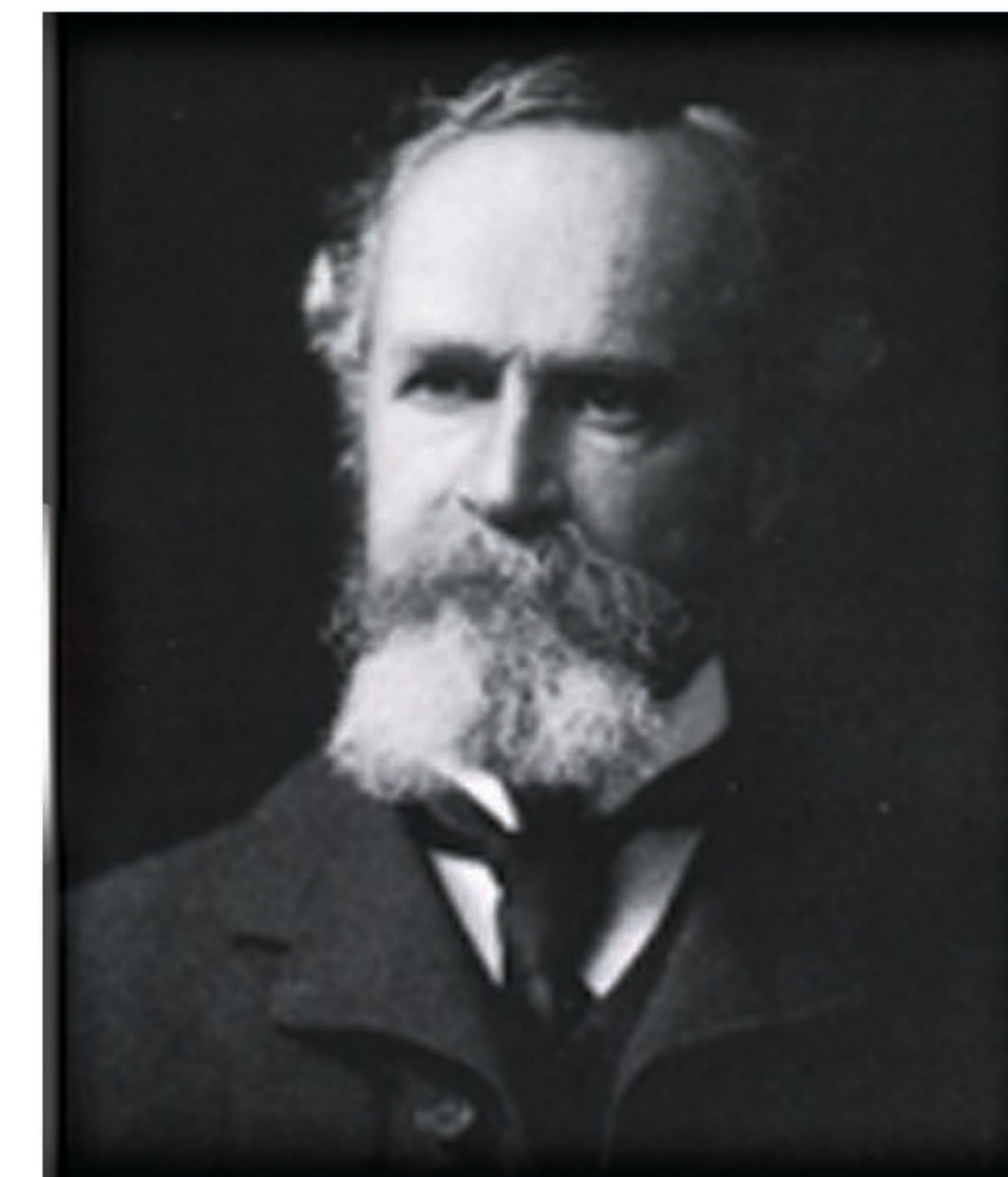
It's an appealing idea because it suggests the possibility that we could become so much more intelligent, successful or creative. If we put our minds to it we can learn new things, but we are not tapping into a new area of the brain.

If they mean it is 10% of the regions of the brain, neuroscientists can place a person inside a functional MRI to see which parts of the brain are activated when they do or think about something.

If the 10% refers to number of brain cells, any nerve cells are going spare, they either degenerate and die off or they are colonized by other areas nearby.<sup>[3]</sup>

We are making use of only a **small part** of our possible mental and physical resources

-William James



## Myth #3: MMR Vaccine Causes Autism

In 1998 an article was published in the Lancet that followed the cases of 12 children who developed gastrointestinal symptoms, 9 of these children had autism and 8 of the 9 had parents that thought that the symptoms of autism has developed for after the vaccine for measles, mumps, and rubella (MMR). This wasn't a randomized control trial or nor even a scientific study

Findings of many studies showed no association between MMR vaccine and autism, neither are the components of other vaccines (thimerosal or mercury).<sup>[4]</sup>

## Other Myths:

- ❑ Wearing glasses weakens your eyesight.
- ❑ Stress turns your hair grey overnight.
- ❑ Flu vaccines gives you flu.
- ❑ Supplements make you healthier.
- ❑ You should drink 8 glasses of water a day.<sup>[5]</sup>

## Conclusion:

Despite their popularity, all of these medical beliefs range from unproved to untrue. While some of these myths simply do not have evidence to confirm them, others have been studied and proved wrong.

Physicians would do well to understand the evidence supporting their medical decision making. They should at least recognize when their practice is based on tradition.

## References

- 1 What Exactly Is Happening When Your Knuckles Crack?. IFLScience. 2018. Available at: <http://www.iflscience.com/health-and-medicine/scientists-finally-figure-out-what-happens-when-you-crack-your-knuckles> .
- 2 Pull my finger' study cracks mystery of knuckle noise. CBC Radio. 2015. Available at: <http://www.cbc.ca/radio/asithappens/as-it-happens-wednesday-edition-1.3034412/pull-my-finger-study-cracks-mystery-of-knuckle-noise-1.303463>.
- 3 Hammond C. Do we only use 10% of our brains?. Bbcom. 2012. Available at: <http://www.bbc.com/future/story/20121112-do-we-only-use-10-of-our-brains>.
- 4 Monday's medical myth: the MMR vaccine causes autism. The Conversation. 2011. Available at: <https://theconversation.com/mondays-medical-myth-the-mmr-vaccine-causes-autism-3739>.
- 5 Medical Myths. Bbcom. 2018. Available at: <http://www.bbc.com/future/columns/medical-myths>.