



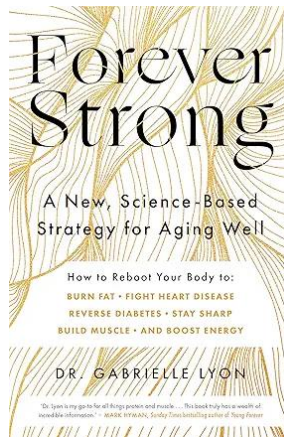
What really is the largest organ in our body? And what does that have to do with Healthspan?

Reading time: 9 minutes

In addition to brand strategy and behavioural research, I have always been interested in the topic of health.

For decades, scientists have been working on the human dream of extending life. This is subsumed under the term Lifespan. In recent years, however, there has been a growing realisation that it would not be particularly exciting to simply grow older if these extra years are spent in poor health in care facilities. We would rather grow older if we can do so in good health and enjoy the extra years. This has recently been subsumed under the term Healthspan. What has a particular influence on our health? First and foremost, sufficient, restful sleep. Then a healthy diet, exercise and not forgetting good social contacts. There are already various BrainCandies on all these topics.

Within these Healthspan considerations, the topic of muscles and protein has increasingly caught my attention in recent years. And that brings us back to the initial question. The skin is generally regarded as our largest organ. However, many scientists now take a completely different view and attribute this leading role to our muscles. Muscles are truly the largest organ in our body and have a huge influence on our health and survival. And most people underestimate this influence and what it actually means if we want to implement this realisation in our daily lives.



Thankfully, a good book was recently published on this topic, which presents the current state of the art in a generally understandable way and brings the reader into the action with lots of practical instructions. This saves me the work of having to work out the status myself from my many sources. The author, Dr Gabrielle Lyon, has done this wonderfully in her book "Forever Strong". She calls the basic principle muscle-based medicine. Dr Lyon is married to a Navy Seal, an elite soldier, and treats many Navy Seals as well as competitive athletes in her practice. The book is 400 pages long, but it is very enjoyable to read, as you quickly understand the basic principle and then focus on the areas you want to go into in more depth, depending on your personal interests. For example, I don't need the detailed argumentation as I've already heard enough on the subject. And the recipe section is also of less interest to me, as we have found our standard dishes for good protein intake. I will now summarise her central points in a very straightforward manner. I will only go into a few points in more detail. I recommend the book for more information.



And I have good links to video interviews and podcasts that you can use while travelling.

Main points of Dr Lyon

Skeletal muscles: Largest organ, approx. 40 % of body weight, slightly higher in men, slightly lower in women, decisive (!) for longevity and general health.

Muscle-centred medicine: A new approach that emphasises the role of muscles beyond exercise, including immune function, metabolic health and hormonal balance.

Sedentary muscles: Unhealthy muscles with inactivity; exercise is essential for metabolic health and glucose regulation.

Key functions of **metabolic regulation:** muscles are the main site for glucose disposal and mitochondrial function (cellular energy)

Immune and hormonal function: Skeletal muscles release myokines that influence inflammation, the immune system and hormone regulation.

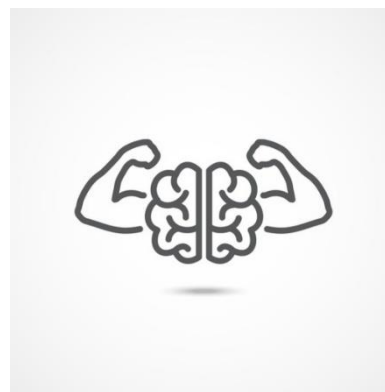
Muscle and ageing: Maintaining muscle mass is crucial for reducing insulin resistance, improving brain health and alleviating age-related diseases. From 40, we lose 1% muscle mass every year if we don't do something about it. From 60, the rate of loss accelerates.

Practical tips

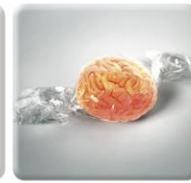
Protein intake: Consume 1.6 to 2 grams of protein per kg of body weight daily to support muscle health. The first and last meal of the day are crucial for maintaining muscle mass. For more information, you can find the link to the interview with Dr Leyman below. At least 30 grams per meal!

Muscle protein synthesis only starts when at least 2.5 or better 3 grams of the amino acid leucine are present. It is not easy to eat more than thirty grams per meal, you have to think about it in detail. Animal protein and milk protein have the best profile and the lowest calorie intake per gram of protein. Vegan protein also works in principle, but requires better planning and usually requires a considerably higher calorie intake. And often provides a lot of carbohydrates in the package. Without additional vegan protein powder, it becomes very difficult. And I won't venture any further onto the thin ice here.

Strength training: Concentrate on strength training 2-3 times a week. Favour exercises that target several muscle groups. There are many suggestions in the book and my links. Do not replace strength training with endurance training. This should be done separately. Cardiologists will tell you something else, as I have just tested at my annual check-up. "98% of cardiologists know that endurance is more important". Well, cardiologists' high self-confidence is not always well-founded, as our studies show. One more thing: strength training is almost always associated with bodybuilding and women in particular fear that they will become overly muscular just by looking at a weight. This is completely unrealistic, our new muscles will create a slightly defined body, more cannot be achieved without extreme training and aids. A defined body that looks good is not the primary goal. Muscles are the well-filled investment portfolio for our healthy future.



Source: istockphoto.com ihorzigor



Exercise and brain health: Regular physical activity improves brain function by stimulating the release of BDNF (Brain-Derived Neurotrophic Factor). We can all use that on the job.

Summary

Longevity: Strong, healthy muscles support metabolic efficiency, reduce the risk of chronic diseases and ensure a better quality of life in old age. The main problem is not obesity, but lack of muscle strength. People in the bottom third of muscle strength have a 50% higher risk of dying from almost anything.

Hormonal balance: Muscle activity affects testosterone, growth hormone and stress regulation, which are essential for overall health. Fun fact: Testosterone also comes first in women.

Conclusion

It's never too late to build muscle. Focus on strength training and an adequate protein intake to promote your long-term health. And another typical BrainCandy tip: motivation is nothing. The only thing that works is consistency. Lift weights even if you're not motivated. And if you are physically limited, find ways to stimulate your muscles. There is also chair yoga, for example.

On a side note: I have of course heard about the low protein trend. As far as I'm concerned, it's more ideology than sound science. It follows the mTor hypothesis that muscle protein synthesis would be detrimental to health. In most cases, the Low Trend is accompanied by severe calorie restriction. The concept thus pursues the goal of increasing lifespan, which has been shown in animal experiments. I clearly favour longer life enjoyment and therefore the healthspan approach.

And here are the links:

1. In-depth discussion on protein intake and protein timing With Dr Layman (1 hour):
<https://www.youtube.com/watch?v=w1YIV1nDclw>
2. Interview with the most successful health podcaster Prof Huberman (3 hours):
https://www.youtube.com/watch?v=WFcYF_pxLgA
3. Interview with Prof Andy Galpin, sports scientist (3 hours):
<https://www.youtube.com/watch?v=t39YHizCFlk>
4. Ted Talk by Dr Lyon (10minutes):
<https://www.youtube.com/watch?v=rvHfNEXO9lw>



Book recommendation

By Ralph Ohnemus, Uwe H. Lebok, Florian Klaus:

Context marketing

The key to consumer behaviour to [order](#).



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