

Boost your Fitness

Let's investigate the health benefits of exercise



Today – the benefits of exercise!



- How does movement benefit your brain & mood?
- Can exercise help with stress?
- The importance of muscle building
- Different exercises and their benefits
- Key nutrition principles in sports and exercise
- Q&A



Drugs or Exercise Study

- Exercise found to have similar effectiveness to drugs in terms of reducing mortality risk in four chronic diseases.
- In stroke, exercise was notably superior to drugs.
- Yet only 14% of adults exercise regularly...In contrast, utilisation rates of prescription drugs continue to rise.







- Do you find it hard to get motivated to exercise?
- What do you think would make it easier?
- Have you found an activity you love?



'The proportion of time spent in moderate to vigorous physical activity was significantly associated with lower risk of all-cause mortality'



Let's Move!



Remember to only start a new exercise routine with permission from your GP



Fitness Test 1

Sitting-rising test (SRT)

 Measures how well you rise from a seated position on the floor - may help predict your longevity.



 Gauges important factors, including your muscle strength, flexibility, balance, and motor coordination.



Fitness Test 2

Rate of Perceived Exertion (RPE Scale)

- Designed to measure your heart rate
- Take a 10 30 minute walk and once you have finished mark your RPE score.
- If your perceived exertion is high on the scale it would be good to work on improving your fitness

RPE Scale	Rate of Perceived Exertion
10	Max Effort Activity Feels almost impossible to keep going. Completely out of breath, unable to talk. Cannot maintain for more than a very short time.
9	Very Hard Activity Very difficult to maintain exercise intensity. Can barely breath and speak only a few words
7-8	Vigorous Activity Borderline uncomfortable. Short of breath, can speak a sentence.
4-6	Moderate Activity Breathing heavily, can hold short conversation. Still somewhat comfortable, but becoming noticeably more challenging.
2-3	Light Activity Feels like you can maintain for hours. Easy to breathe and carry a conversation
1	Very Light Activity Hardly any exertion, but more than sleeping, watching TV, etc



Why exercise is good for your brain?

Improves blood flow to your brain



- Reducing inflammation
- Prevent & help in the treatment of depression
- Alleviate pain (both physical and mental)
- Elevate mood states
- Lowers levels of stress hormones
- Promoting cardiovascular health "What's good for the heart is good for the brain,"





Brain activity after walking





Brain is just like a muscle



- Are we born with a certain number of brain cells?
- Are we born with a certain number of muscle fibers?



Neurogenesis

- Creation of new neurons in hippocampus
- Exercise activates transcription factors in existing hippocampus neurons
- Transcription factors initiate the creation of BDNF proteins which promotes neurogenesis new brain cells!





BDNF (Brain-Derived Neurotrophic Factor)

Promotes neurogenesis

Protects existing neurons

Promotes synaptic plasticity

Stimulates injured neurons to regenerate

Fortifies the connections among neurons



Exercise for happiness...

- Quicker recovery from mild depression more effective than drugs in some cases
- Improved quality of life and reduced anxiety & depression symptoms
- Delivers oxygen & nutrients to your tissues boosting energy levels
- Better stress tolerance GABA
- Releases lovely endorphins more in a mo!





Exercise and covid-19

Studies during Covid-19 pandemic found that exercise had...

- Immune-boosting benefits
- Protective against mental health disorders
- Enhanced hope







Exercise and depression





Exercise & endorphins

- Chemicals released in response to stress or pain
- Exercise stimulates release, which minimise the discomfort (even providing a feeling of euphoria)
- Might allow the pleasure associated with neurotransmitters such as serotonin and dopamine to be more apparent
- The release of endorphins has an addictive effect





I have never exercised in my life, is it not too late now?





Ernestine Shepherd



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Fauja Singh







Resistance/strength training – what is it and why should you try it?

Weight Management

Basal Metabolic Rate
Weight gain (around 1lb of fat per year)

Age/Muscle loss

Sarcopenia

Osteoporosis

Declining oestrogen

Declining testosterone

Balancing hormones

Muscle is involved in the release and regulation of hormones

Boosting Energy Mitochondria

Supports blood sugar balance



Why muscles underpin longevity

Sarcopenia = age related muscle loss

- Strength peaks around age 25
- Muscle mass decreases approximately 3-8% after age 30
- After age 60 rate of decline increases

Whatever your age try adding some strength training to your routine!





Five key muscle exercises

- Spider Crawls
 - $_{\circ}~$ Good for a warmup
- Burpees
 - $_{\circ}~$ Start by using a step
- Press-ups
 - Start with your knees on the floor
- Squats
 - Beginner level or if you have any hip/knee pain - start from a chair
- Plank
 - Start with knees on the floor



Nutrition ideas for boosting **SUPER** performance & pitfalls

- ✓ Beetroot
 - Nitrates Nitric Oxide reduces the amt of oxygen the muscles need
- ✓ Coffee
 - Improves neuro-muscular coordination
- ✓ Hydration
 - Essential but we are all different
- ✓ Electrolytes
 - If sweating buckets!

High sugar energy drinks

- Add unnecessary calories and in many studies do not show performance improvement
- Can increase BP (sugar and caffeine mix)

Energy bars

- High sugar
- ✓ Try homemade protein bars

Carbohydrate loading

• Mixed research, timing, personal



Post Exercise Recovery



Counteracting muscle fibre damage

For athletes or anyone trying to build athletic potential, muscles need a daily protein intake of around the 1.2-1.6g/kg body weight range (i.e. 84-112g for a 70kg adult).



Counteracting oxidative stress

Generous amounts of antioxidant rich foods and drinks should be included in the diet Possibly a multi-vitamin containing A, C & E and selenium.



Post Exercise Recovery



Supporting a healthy inflammatory response

Think plant-based to ensure a range of nutrients, vitamins and minerals – a rainbow 🌈

Drinks – green tea or teas from adaptogen herbs e.g. cat's claw and ginseng

Spices e.g. turmeric, ginger, cinnamon

Supporting our immune system

Over-training can lead to immune suppression Ensure regular rest periods to recover between bouts of exercise Zinc and vitamin C



What changes will you make?

Try the sitting to standing challenge – safely!



Regular 'movement snacks' in your day?

Daily walks; when? Morning, lunchtime, both? Diarise.

Phone meetings standing up and or walking around.

Lift weights, even once or twice a week, but introduce regular resistance training.

Vary the 'movement' – walk, yoga, dance, Qi Gong, what do you love doing?! Is it fun to you?



So, let's get started!

- **Diarise** remember regularity is key
- Fun if you don't enjoy the exercise, it will be hard to maintain
- Challenge yourself when you have made progress
- Keep active but incorporate rest days too
- Incorporate strength training...check out this link for further motivation: <u>At</u> <u>home strength training ideas</u>





Additional Resources

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morning alarm

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