

# WALKING

HEALTH FOR THE WHOLE BODY  
& HOW TO MANAGE THE NIGGLES



## WHAT'S NOT TO LIKE?

CARDIOVASCULAR HEALTH  
RESPIRATORY FUNCTION  
BONE HEALTH  
WEIGHT LOSS  
SLEEP  
STRESS & MENTAL HEALTH  
MUSCLE, TENDON & JOINT HEALTH



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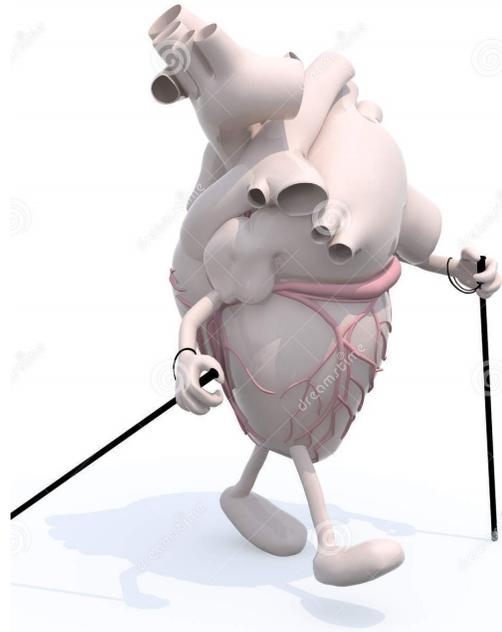
# CARDIOVASCULAR

## THE GOOD BITS:

- Improved diastolic and systolic blood pressures
- Improved cardiac output
- Improved resting heart rate
- Decrease stroke/heart attack risk

Mandini et al, 2018 - 296 patients. 5-21mmHg drop with regular (15-60mins a day) supervised walking and no adverse events. Enough for some to stop hypertension medications!

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6119598/#ef-3>



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# RESPIRATORY

## THE GOOD BITS:

- Improves quality of life and physical health in COPD, asthma and other respiratory diseases.
- Improves lung function metrics eg functional expiratory volume FEV-1 ; FVC

Luponen et al (2018) - 12 year study of asthma patients, showing the direct link between walking volume and FEV1 and FVC

<https://www.tandfonline.com/doi/full/10.1080/20018525.2018.1533753>



# BONE HEALTH

## THE GOOD BITS:

- Improved turn over of bone remodelling
- Reduces risk of osteopenia / osteoporosis
- Prevents speed of bone density loss
- Less risk of fracture with falls or fragility fractures

Benedetti et al (2018) - review of 27 studies shows weight-bearing helps bone density, and should include strength training for optimal gains.

<https://www.hindawi.com/journals/bmir/2018/4840531/>



# WEIGHT LOSS

## THE GOOD BITS:

30 minute brisk walk = 200-600calories dependent on your weight.

Aim for harder breathing (not shortness of breath) to help reduce the risk of health problems like:

- Type 2 Diabetes
- Osteoarthritis e.g. knee/hip replacement
- Cardiovascular Events eg stroke/heart attack
- Depression



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# IMPROVED SLEEP

## THE GOOD BITS:

- Improve natural circadian rhythm with a daytime walk
- Boosts serotonin levels - sleep modulating hormone
- Reduces day-time fatigue by increasing cardiovascular fitness
- Boosts endorphin levels & stress to facilitate sleep
- Associated weight loss gains will help sleep apnoea



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# MENTAL HEALTH

## THE GOOD BITS:

Exercise is part of the NICE guidelines for depression

Endorphins = naturally made HAPPY HORMONES.

Endorphin production reduces stress e.g stressful job / social situation

Endorphin production reduces pain e.g long term health condition or as a means of cross-training whilst recovering from injury.

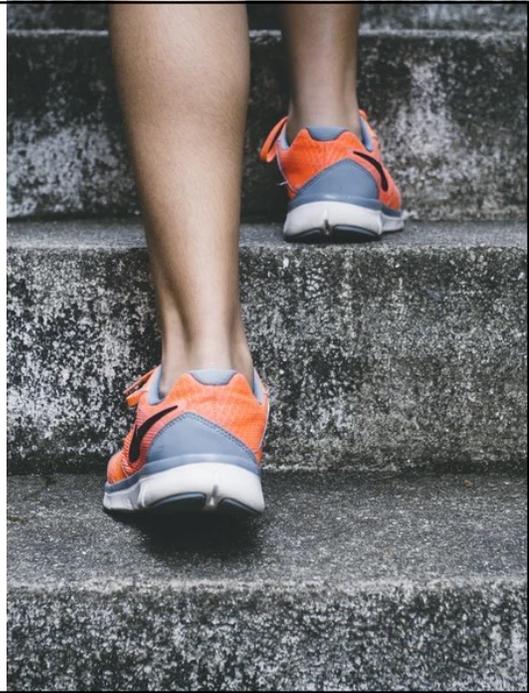
Enhanced mood associated with more social exercise, including when walking.



# MUSCULOSKELETA L

THE 'PHYSIO-Y' GOOD BITS:

- Joint health - Synovial fluid keeps joints healthy, strong muscles to support the joints.
- Improved muscle function - calf, quadriceps, hamstring and glute strength supports joints, aids balance and improves circulation.
- Better Tendon Strength (stiffness) - loading is the most important part of maintaining tendon health



# WALKING AILMENTS

DEGENERATIVE TENDONS & OSTEOARTHRITIS:

Osteoarthritic knees - worse on uneven ground/twisting. Swells with load. Painful to kneel on. Limited bend.

Osteoarthritic hips - pain on walking deep at the hip. Swaying walk. Pain putting shoes/socks on.

Achilles tendinopathy - painful heel tendon - worse with more loading uphill. Gets better walking, then worse again after. Normally degenerative.

Patella tendinopathy - painful tendon below knee - worse downhill/stairs. Gets better walking, then worse again after. Normally degenerative.

Tibialis Posterior tendinopathy - pain at inside of ankle, often due to flatter feet.

Plantar fasciopathy - pain in tendinous band in foot at heel with walking. Feels like pebble in shoe.

Lateral hip pains - tender to poke at bony prominence on outside of hip. Worse lying on it, and sometimes even laying on other side. Also worse walking increased distances.



## TOP TIPS TO AVOID INJURY

Stretch down after a walk - calf, quads and hamstrings

Build tolerance slowly if just starting out - no sudden increase in volume or hillier climb.

Get good footwear

To stick with it - walk in groups/with friends use wearable tech

