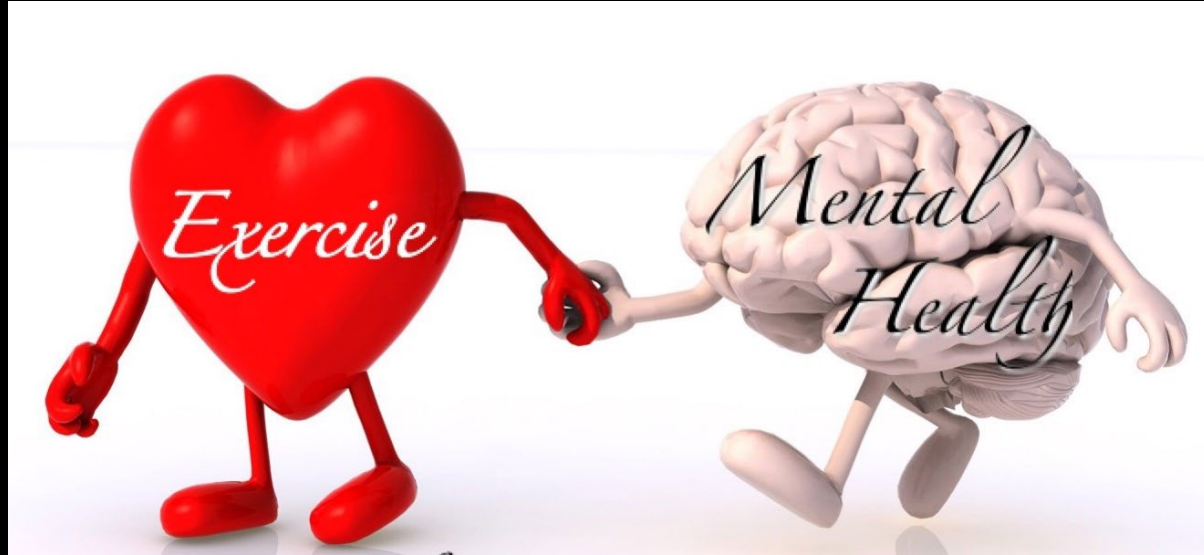


Promoting physical activity through social prescribing

Why we should be excited by this





Why is physical activity
important by Dr Caz Nahman

CMO recommendations for physical activity

Early childhood (0-5)- 3 hours/day including active/outdoor play

Young people (5-18)- 1 hour/day – moderate activity (e.g. walking to school, playing at school breaks, outdoor activities)

Adults (18-65)- 150minutes/week of moderate activity; Any better than none, strength work twice a week, reduce long periods of inactivity

Older adults (>65)- similar; try to do something each day; 2x /week activities that improve strength, balance and flexibility

Are we born to run or are we born to rest

Until recently physical activity was essential for survival

Difficult to study but social anthropologists have studied hunter-gatherers (Hadza tribes) and subsistence farmers in Mexico

Hadza tribes/Koi-San – 2-3 hours per day hunting/foraging – similar to a factory worker

Subsistence farmers – much tougher – longer hours

Resting – NB for growth, body maintenance, storage, activity and reproduction



are runs alongside ultra-runner S

Physical health problems in patients with severe mental illness – how might physical activity help?

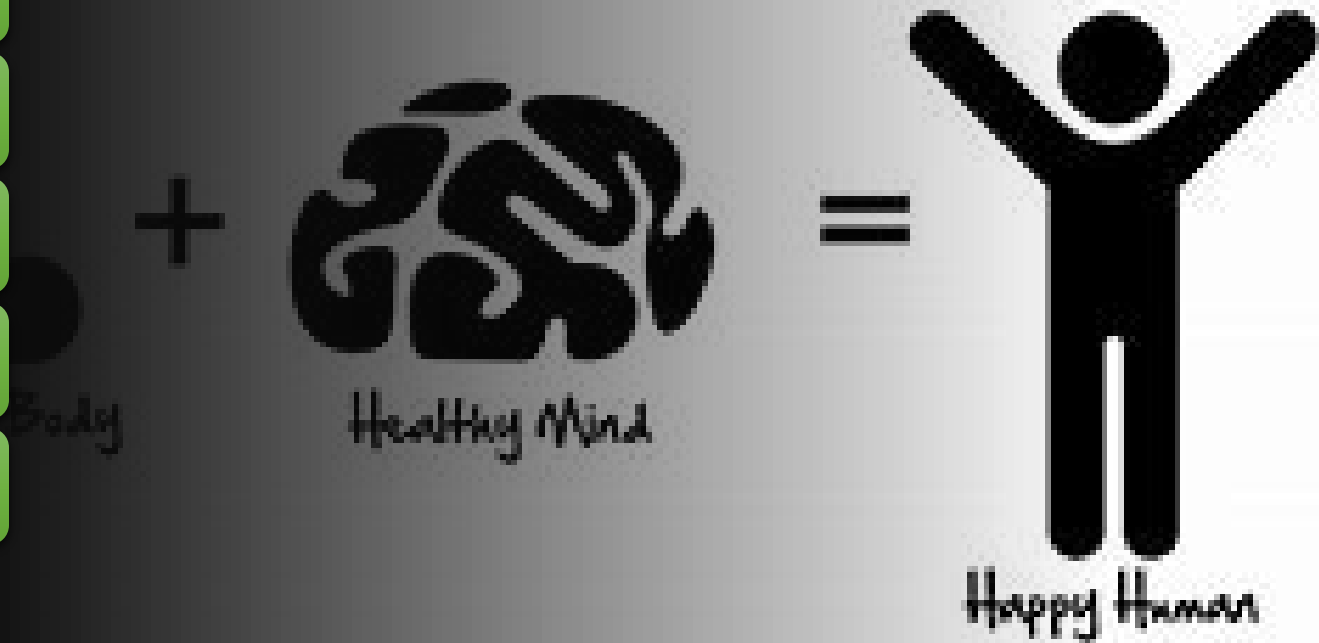
Mortality gap – males – 20 years; females 15 years

More smoking, more obesity, less physical activity

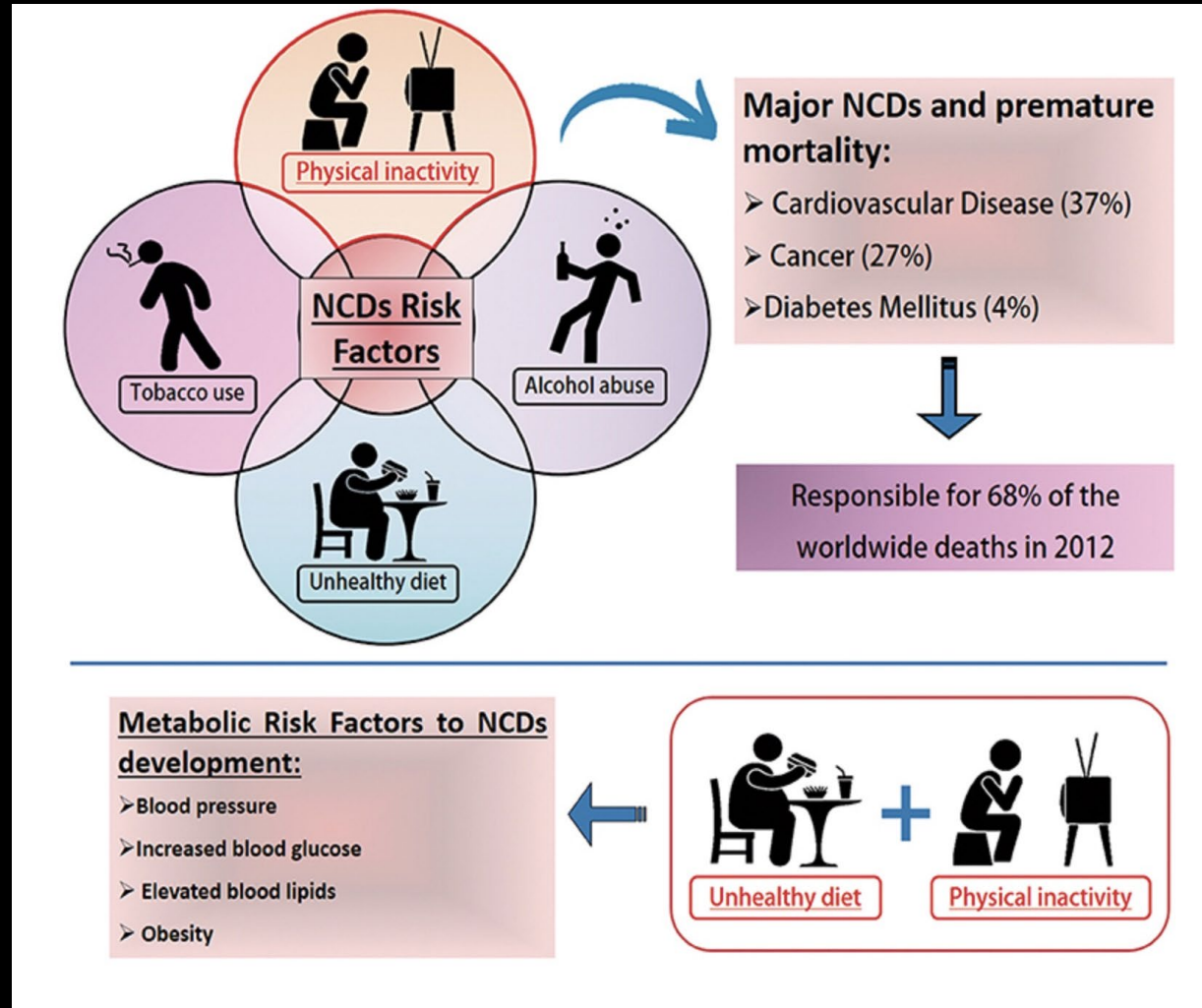
More CVD; COPD, Cancer

Link between anti-psychotic medication and weight gain, hyperlipidaemia, diabetes

(See Ashworth M; Schofield, P, and das-Munshi J (2017) Physical health in Severe mental illness BJGP 67(663) 436-437

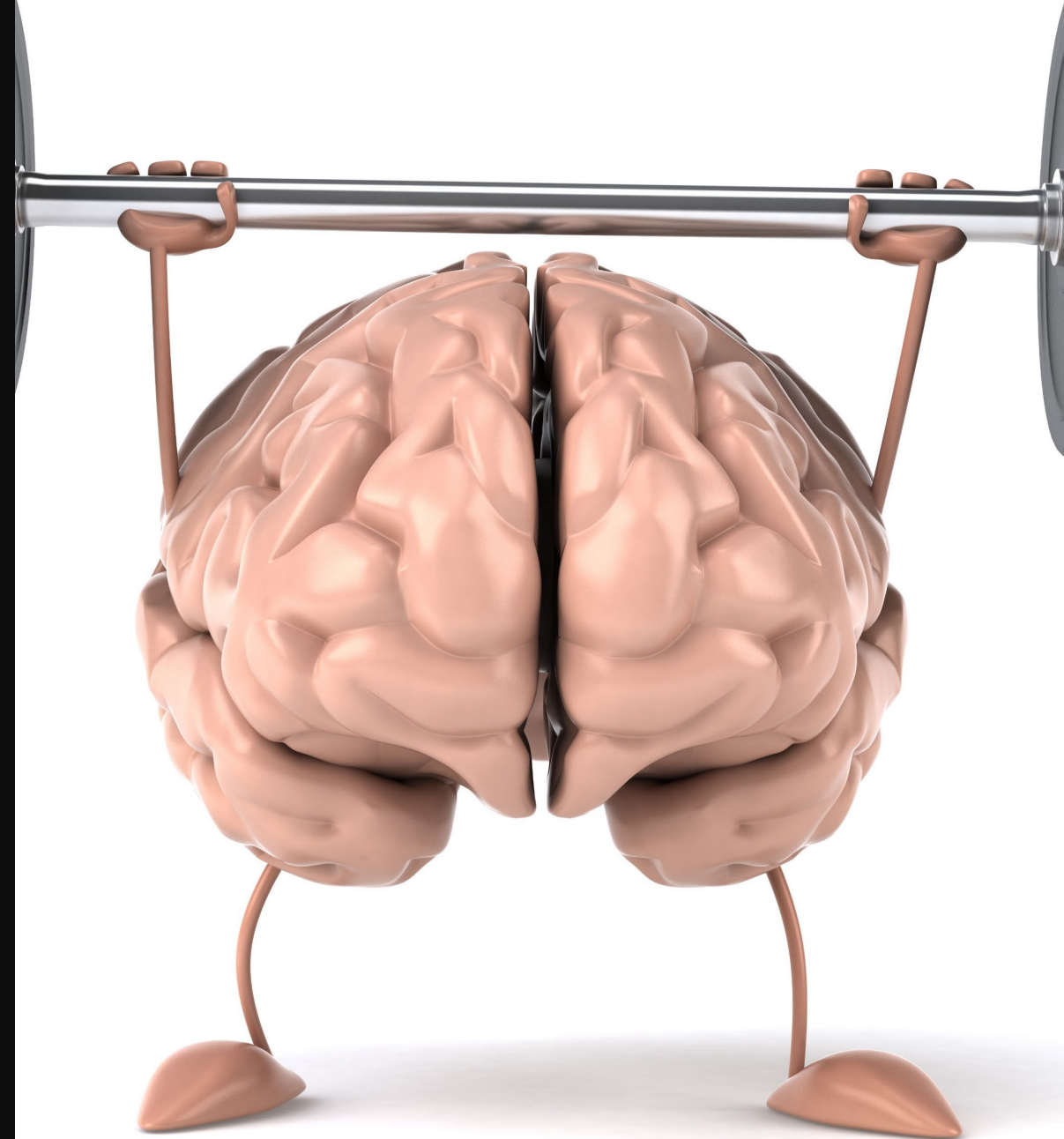


- Lifestyle risks in patients with mental illness



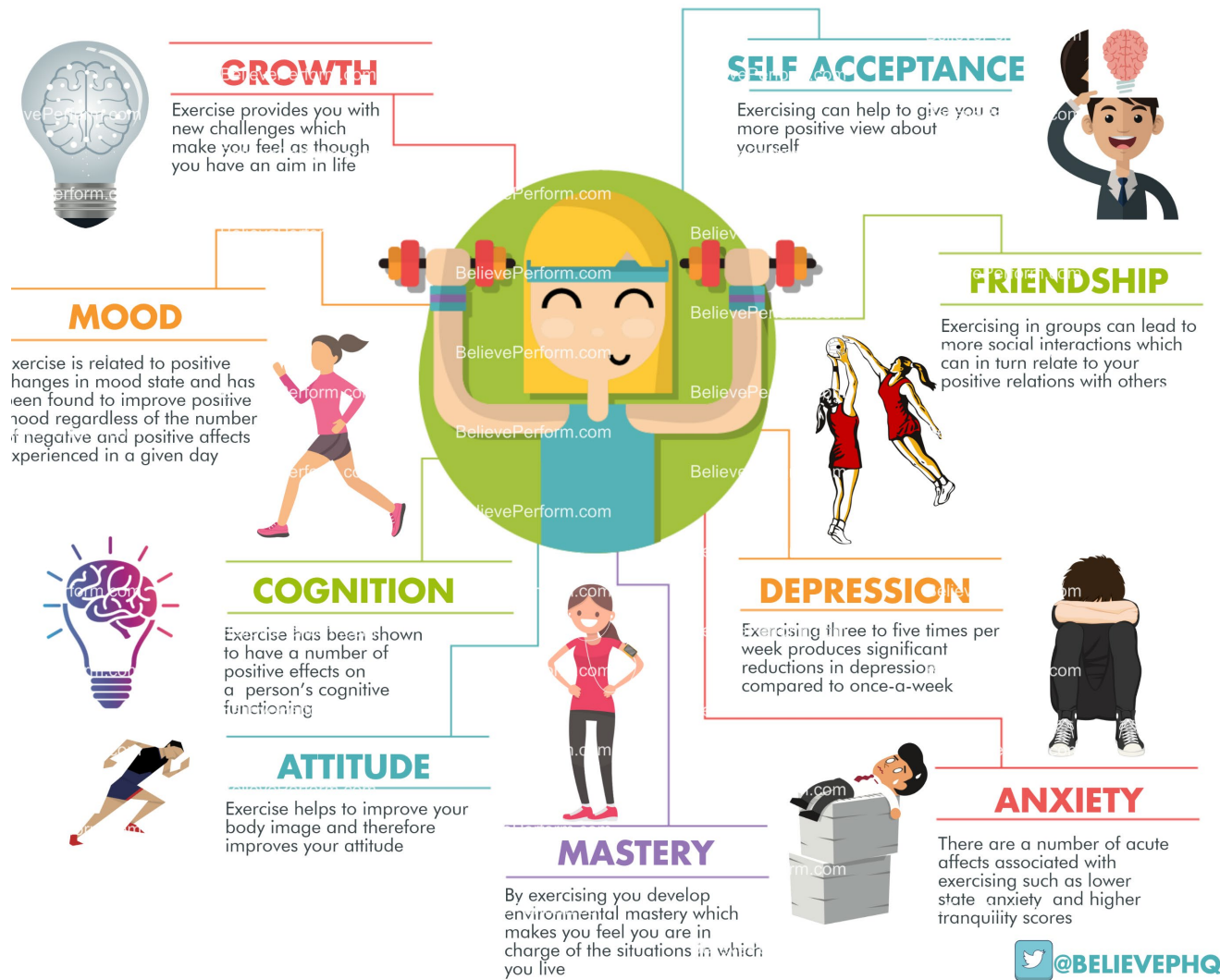
Impact of physical activity on the brain

- Increased grey matter volume (frontal, hippocampal, occipital and entorhinal areas)
 - Change in structure and connectivity of white matter regions and increase white matter volume
 - Structural changes to basal ganglia
 - Neurogenesis, angiogenesis, synaptogenesis
 - Increases BDNF which reduces neuroinflammation
 - (Not enough time to discuss resistance training vs aerobic exercise; anything is good)
-



- Exercise helps our psychological well-being regardless of whether we have a mental illness or not.

THE EFFECT OF EXERCISE ON PSYCHOLOGICAL WELLBEING



How might physical activity positively benefit mental illness?

Direct impact on mental illness symptoms:

- Depression
- Psychosis
- Anxiety/OCD

Psychological benefits:

- Distraction; social interaction, self-efficacy , reduced social withdrawal, improved self-esteem; reduced anxiety sensitivity

Physical benefits:

- Reduced inflammation, Increase in BDNF, changes to HPA, limbic system, amygdala
- Impacts mood and motivation, stress response, memory formation



Why is it hard to engage/start physical activity

To begin with – discomfort, negative feedback loop – discomfort, minimal reward

Because we never evolved to be inactive and out of shape, adaptations that make physical activity rewarding develop only after weeks/ months of effort

- DOPAMINE – less active leads to less dopamine receptors; more obese – less dopamine receptors – less REWARD; dopamine (over time) increases during exercise but not before – so – HOW DO WE GET OFF THE COUCH?
- SEROTONIN – non exercisers have lower serotonin activity – more depressed, less motivated and harder to move
- ENDORPHINS – only produced after 20 minutes or longer so need to be fit enough to get off the couch for that period of time to get the reward.
- ENDOCANNABINOIDS – produced after fairly long periods of activity so therefore little relevance to those less active

Over time – exercise becomes more of a habit and we remember the rewards for exercising and exercise becomes rewarding, fun

BUT – IN THE BEGINNING IT IS HARD AND GIVEN THAT IT CAN BE HARD FOR US HOW MUCH HARDER IS IT FOR OUR PATIENT GROUP?



How do we help ourselves and others be more active

Social component

Lead by somebody qualified (a qualified trainer)

Activities that are fun for the individual –dance, playing games

Variety helps – experiment, mix things up

Environmental beauty

Nudging and coaxing