

WHY EATING LESS & EXERCISING MORE MAKES YOU FAT!

By Stephanie Moore
MA(Hons) BA(Hons) BSc(Nut.Med)



WEIGHT ISSUES ARE A RESULT OF HORMONAL, BIO-CHEMICAL & GUT MICROBIOME IMBALANCE:

Being fat is just a symptom of dysfunction.....

- The body has numerous mechanisms to keep is at a healthy weight / body fat percentage.
- It should be hard work to be under or over-weight.
- If hormonal signalling is corrupted (chronic inflammation) the body's ability to self-regulate metabolically is impaired. Much of modern foods and other modern-life stressors are known to be endocrine disruptors and triggers of systemic inflammation which results in excessive fat gain.

.... Focusing on calories is missing the point entirely!!!!

WHY 'CALORIES IN - CALORIES OUT' IS FUNDAMENTALLY FLAWED

Most diets work on a simple equation for weight loss:

eat more than you burn up = weight gain

eat less than you burn up = weight loss

This does not take in to account what happens to calories once
inside the body such as:

- Thermic effect of the food
- Fat, fibre, protein ratio
- Satiation level
- Condition of gut microbiota
- Individuals insulin & leptin sensitivity

ALL CALORIES ARE NOT EQUAL



How can 200 calories of chocolate cake (a small slice)...

... have the same metabolic influence on the body as 200 calories (a handful) of almonds?



- Chocolate cake has a **high glycemic index** (*refined sugar & flour*) causing high blood glucose levels. This is so dangerous the body HAS to produce large amounts of insulin to bring blood sugar down.

INSULIN IS OUR MAIN STORAGE HORMONE!

If not immediately required, excess blood glucose is converted to body fat.

- The **industrialised, de-natured fats** used in processed foods trigger inflammatory responses that encourage weight gain, disrupting a healthy microbiome.
- The high level of sugar and fat in chocolate cake will **stimulate the nucleus accumbens**, where opiate receptors trigger the drive for more, so having one small piece will be virtually impossible.

- **Whole Nuts** contain a healthy, natural balance of complex carbs, fats, fibre and protein all of which the body can readily use for functions within the body, turning off the drive for more food.
- **The healthy fats** and proteins give the message to your body that it is being nourished. This will leave you feeling full and satisfied for a long time and will put a stop to sugar cravings.
- **Fat, protein and fibre** are the crucial components of our diet – there is no such thing as an *essential carbohydrate!*



THE CALORIE FLAW

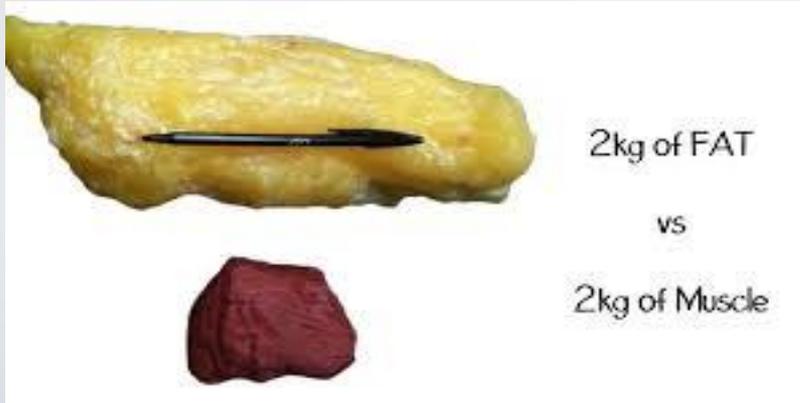
eating less & exercising more

DOES NOT create the need to **BURN BODY MORE FAT.....**

It creates the need for the body to **SLOW DOWN.**

Eating less and exercising more = **FAMINE RESPONSE** =

the body holds on to body fat and burns muscle instead = **LOWER BMR** =



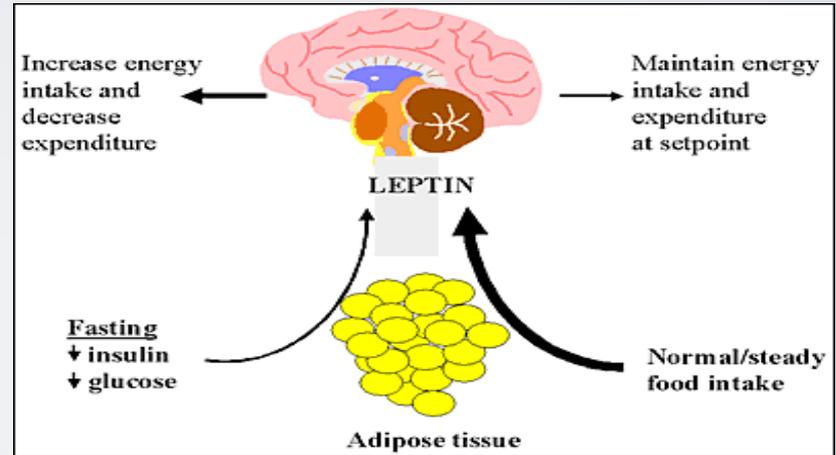
lower calories.

LEPTIN - THE FAT-LOVING HORMONE

Leptin is a powerful hormone released from fat cells. Leptin communicates directly with the hypothalamus in the brain. The job of leptin is to let the brain know if it needs to rev the body up or turn it down (feast or Famine mode).

A strong leptin message tells the brain that you are in times of abundance and the brain then turns down your appetite and turns up thyroid function = higher energy levels so you can go out and hunt, gather, build a shelter etc.

***This is known as Metabolic Adaptation
again making calories virtually meaningless!***



LEPTIN RESISTANCE

Once leptin was discovered and it was established that high leptin levels reduced appetite & increased energy output, fat burning and muscle building, there was great excitement that a leptin supplement would be the key to managing obesity.

It's never that simple when it comes to the body ...

OBESITY IS NOT DUE TO A LACK OF LEPTIN

Insulin Resistance is a major factor in **leptin resistance**

Insulin resistance = excess visceral fat = increased inflammatory cytokines.

These bind with leptin in the blood stopping the transport of leptin across the blood brain barrier. So, despite an abundance of fat cells producing excessive leptin, the leptin signal reaching the hypothalamus is weak = **leptin resistance**.

MORE TRIGGERS FOR LEPTIN RESISTANCE

- high fructose corn syrup (NAFLD = inflammation)
- high blood triglycerides (fats from high carbs & damaged fats) - triglycerides floating around in your bloodstream block the path of leptin.
- toxicity – esp. heavy metals (mercury, lead, aluminium, chlorine)
- lack of sleep (shift workers / highly stressed individuals)
- high grain diet (lectins bind to leptin receptors)
- extreme dieting and exercise triggers excess RT3 production to slow metabolism and inhibit leptin uptake.

REGULAR INTAKE OF DIETARY FAT KEEPS LEPTIN LEVELS BALANCED

This is why we need to eat fat to lose fat...

The body *WILL NOT readily* burn up stored body fat if it thinks it is in or approaching famine.

A daily intake of a range of healthy fats prevents the slowing of your metabolism associated with ALL low calorie diets.

Eating fat provides your body with its preferred energy source: fat (ketones) is a clean and constant fuel.

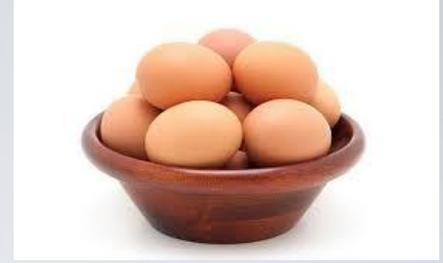
Too little fat intake and your body will burn muscle for energy. The less muscle you have, the lower your calorie-burn, 24/7.

HEALTHY FATS ...

Avocado
& coconut



Plenty of eggs



Extra virgin olive
oil & brined olives



Grass-fed (CLA & Omega 3) NOT
corn-fed meat (omega 6 & antibiotics)



Wild (omega 3) NOT Farmed Fis



Fermented, full-fat organic
dairy



Nuts & seeds

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BUT REMEMBER.....

a diet high in healthy fats is only beneficial if blood glucose (dietary sugars & starches) are well balanced.

All meals and snacks (if needed) should comprise plenty of good fats and fibre in the form of low starch vegetables, nuts, seeds and pulses; small amounts of high quality protein and slow-release complex carbohydrates as needed, not highly processed shakes, bars and fake-food.

THE 4 KEY FACTORS FOR FLICKING ON THE FAT-BURNING SWITCH

- **Improve insulin and leptin sensitivity** by balancing insulin production: all meals and snacks should contain high fibre, healthy fats and protein and avoidance of quick release sugars and starches.
- **Feed the microbiome** with fibre and fermented foods: christensenella – the ‘thin’ bacteria ; Akkermansia - reduces risk of diabetes and obesity. Increased with fasting....
- **Practice intermittent fasting** (5:2; 16:8; 1:6)
- **Engage in HIIT**

FEED YOUR GUT MICROBES!

Healthy gut microbes thrive on fibre and fermented foods not sugar, flour and manmade chemicals.

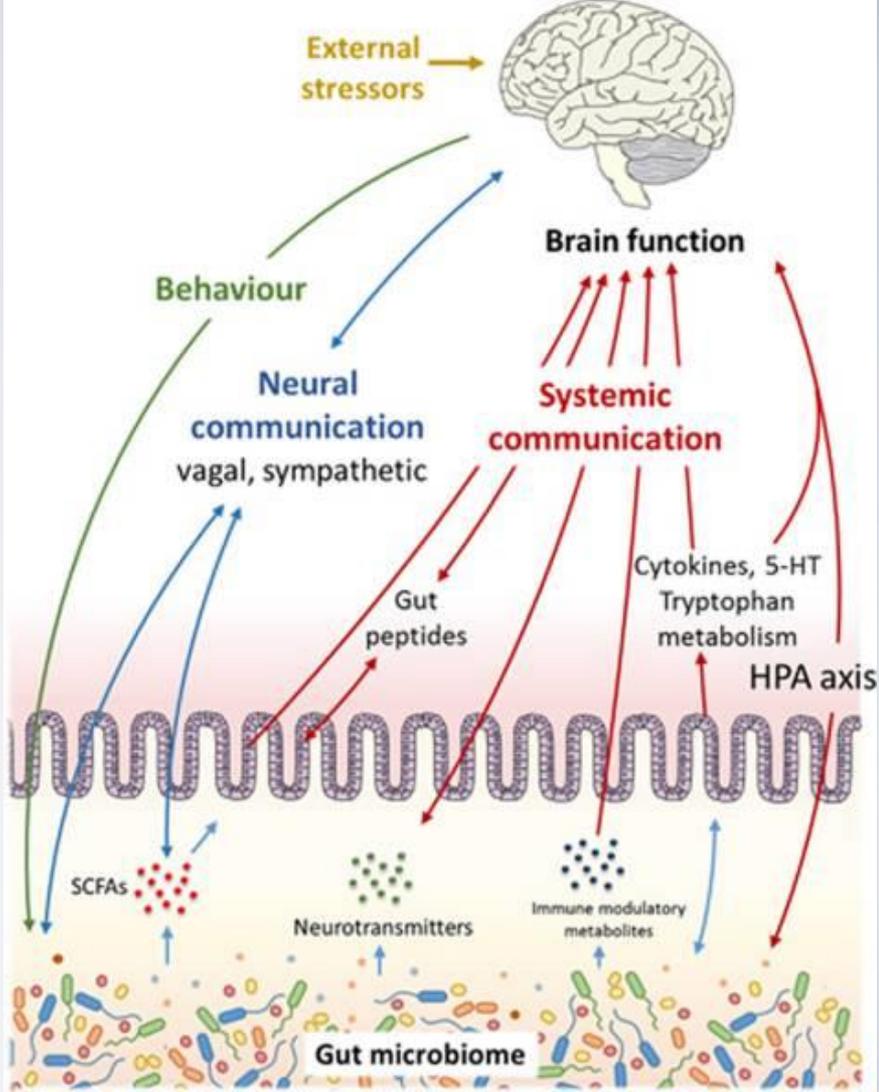
Latest research continues to discover complex relationships between our gut microbes and their influence over:

- Appetite
- Extraction of calories vs nutrients
- Hunger / satisfaction signals
- Influence over neuro-transmitters – gut microbes can ‘talk’ to neurons. If someone is depressed, anxious, stressed, making healthy food choices becomes much harder.

A paper published in Molecular Psychiatry in June 2016 explores the 2-way feedback loop between psychopathologies and the gut microbiota. Reduced microbiota diversity, correlated with poor diet, dysfunctional sleep patterns and/or antibiotic use, are associated with increased pro-inflammatory metabolites, intolerance to stress, anxiety, panic attacks psychosis and delirium.

“A diet that increases microbiota diversity is associated with improved cognitive ability ... reduced diversity is linked to increased adiposity, insulin resistance, dyslipidemia and more pronounced inflammation.”

From gut dysbiosis to altered brain function and mental illness: mechanisms and pathway. G.B.Rogers et al. .Molecular Psychiatry 2016 Jun;21(6)



SUGAR VS ARTIFICIAL SWEETENERS

In 2013 French researchers had followed more than 66,000 women since 1993 and found that the risk of developing diabetes was more than double for those who drank artificially sweetened drinks than it was for those who consumed sugar-sweetened beverages.

American Journal of Clinical Nutrition 30.1.2013 ajcn.050997

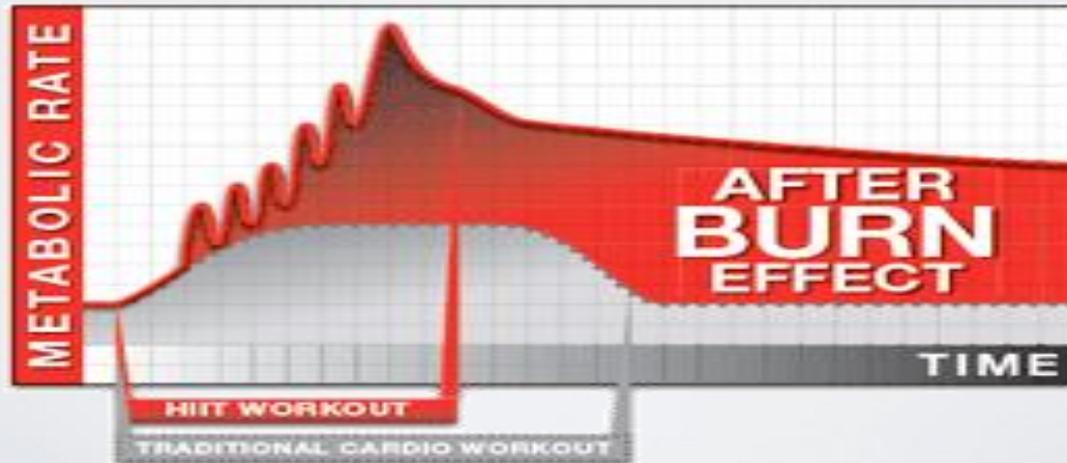
A recent study from Israel established that consumption of artificial sweeteners causes toxic by-products to be produced as gut bacteria attempt to metabolize these man-made chemicals, down-grading the condition of the gut microbiome.

INTERMITTENT FASTING

- Helps to heal the gut / 'cleans-up' mucus lining
- Down regulates inflammation
- Improves hormone sensitivity esp. insulin, leptin & ghrelin
- Increases autophagy activity
- Increases production of growth hormone
- Improves ability to burn fat
- Offers many cognitive benefits including some protection from neuro-degenerative diseases such as Alzheimer's and Parkinson's disease.

CHANGE THE WAY YOU EXERCISE

- Standard aerobic exercise is not helpful for fat burning.
- HIIT or Burst training and resistance exercise to rev up the metabolism and build muscle.



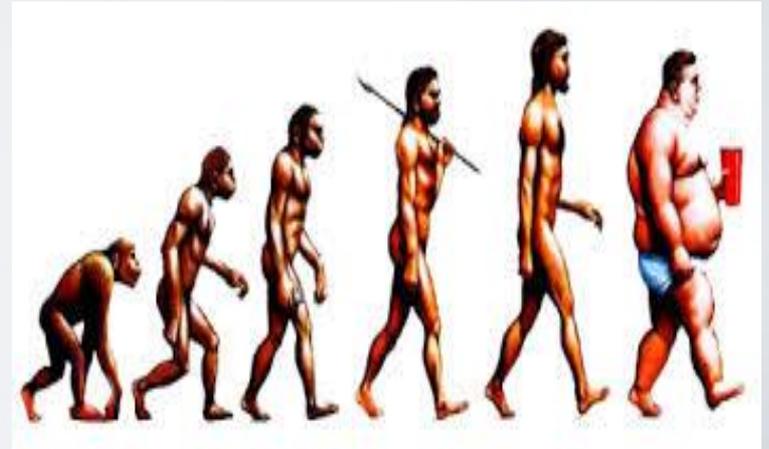
Our food choices, frequency of eating and way we exercise inform the body, especially our microbes, on how to behave ... either feast mode or famine mode.

FOOD IS INFORMATION

The answer to the obesity, CVD & type 2 diabetes epidemics has to be found in looking at how our diet has change since the 1970s yet we are blaming foods that we have been eating for over 100,000 years.

“Man is the only species clever enough to make his own food and stupid enough to eat it!”

Barry Groves PhD



IN SUMMARY

We know that the notion of eating less and exercising more is not working.

What is needed is simple, practical lifestyle changes that are life-long health supporting practices to allow the body to self-regulate on a cellular and microbial level to facilitate natural fat loss, immune support and cognitive regeneration.

Thank you for listening

For more information contact:

Stephanie Moore

www.health-

in-hand.co.uk

