



LifeStyle1st



Lifestyle Medicine and Healthy Eating

18th April



What is the most important thing you possess?



POOR

OPTIMAL

SURVIVING

THRIVING

Health = Wholeness

*health is concerned
with 'flourishing', not just a
'lack of disease'.*



Aim of Session

- Give you an introduction to **Lifestyle Medicine**
- Establish the most important **principles for eating well**
- Provide some **strategies** to eat for **optimum health**



What is normal???

Recent Health Statistics...

- 17.9 million deaths attributed to CV disease each year

World Health Organisation

Obesity



Public Health England

Healthmatters Obesity in children



28%
of children
aged 2 to 15 are
**overweight
or obese**

Younger generations are becoming **obese at earlier ages** and staying obese into adulthood



Of every 100 **4 & 5 year olds** in England there are...



under
weight



healthy
weight



over-
weight



obese

Of every 100 **10 & 11 year olds** in England there are...



under
weight



healthy
weight

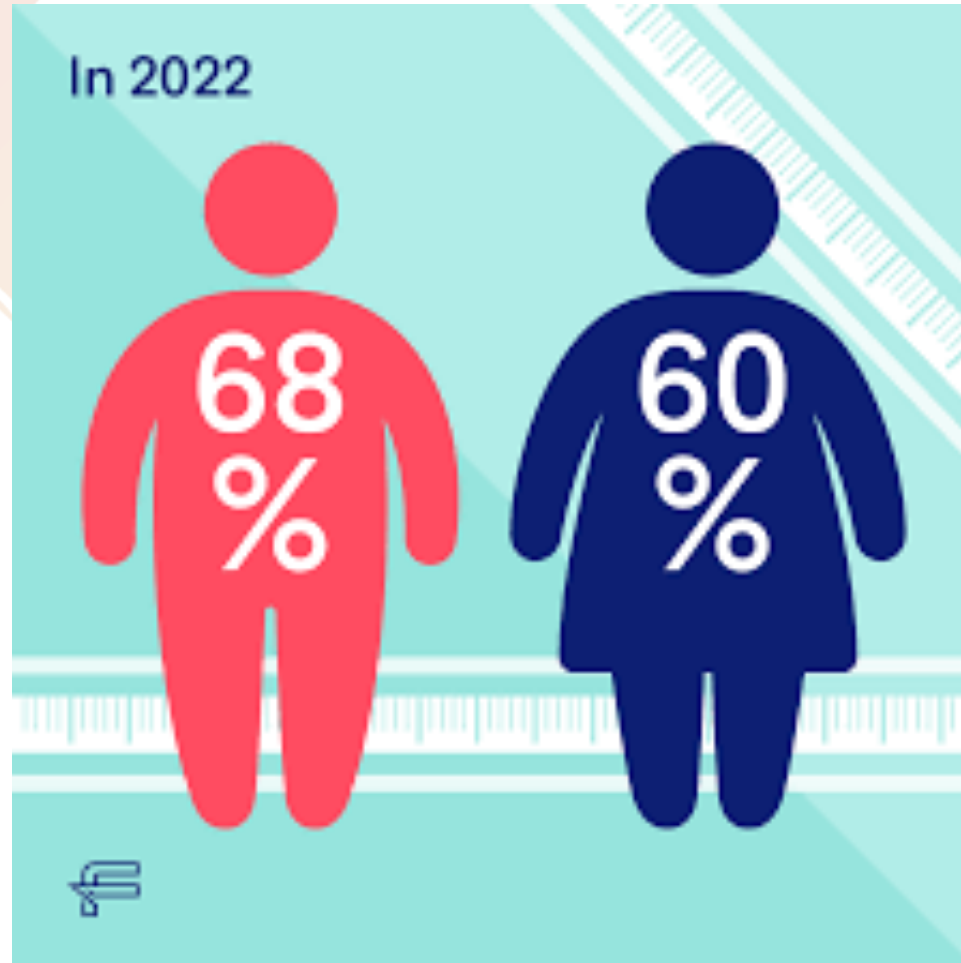


over-
weight



obese

Adult Obesity

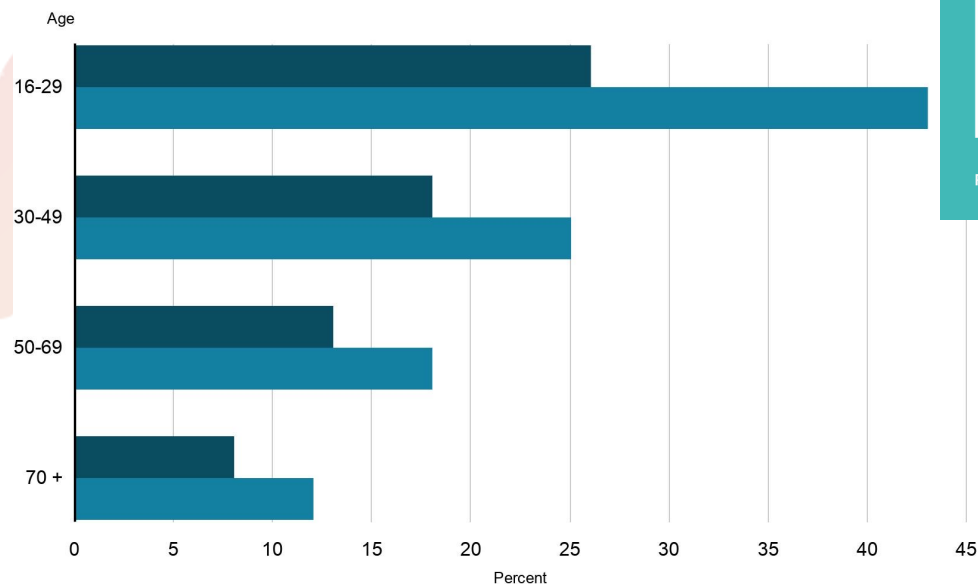


Mental Health

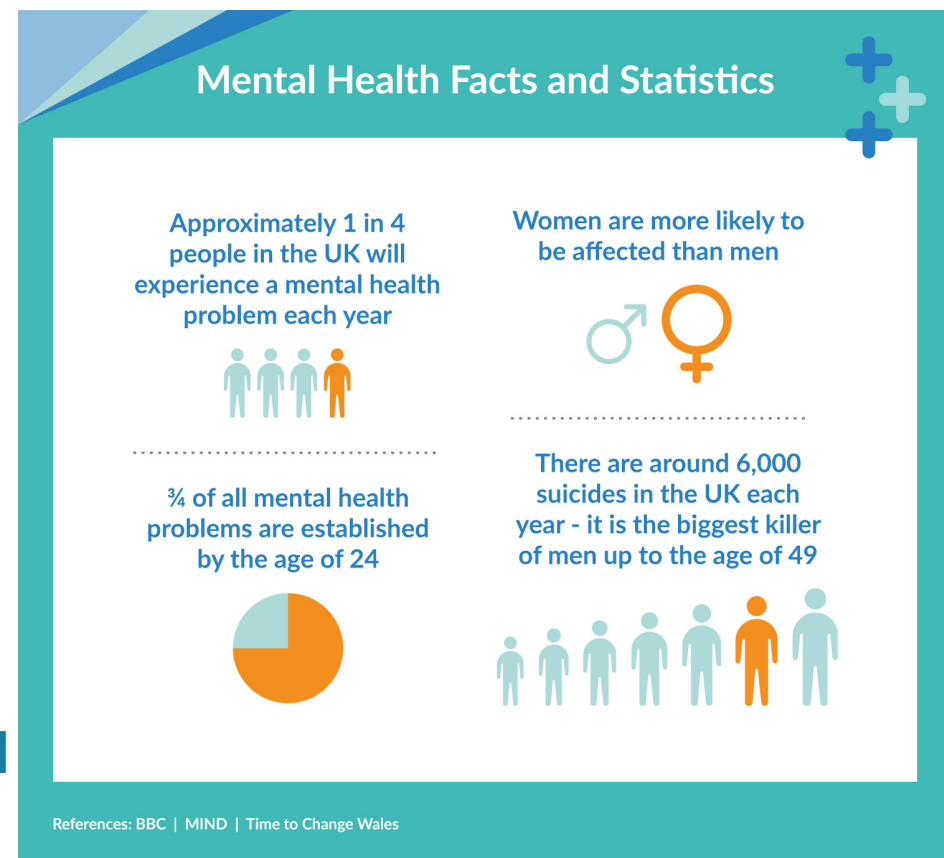
Younger women most likely to experience depression

Percentage of adults with some form of depression, 27 Jan - 7 March 2021

■ Men
■ Women



Source: ONS



BBC

Allergies

- 30-40% of all adults in the world are allergic to something

Diabetes

- Since 1996, the number of people diagnosed with diabetes in the UK has risen from 1.4 million to **3.9 million**.
- Taking into account the number of people likely to be living with undiagnosed diabetes, the number of people living with diabetes in the UK is over **4.8 million**

Diabetes UK

Decline in Physical Activity...

- Study looking at 75000 children aged 11-18
- Average time to run a mile decreased by 90 seconds in last 30 years

Why?

- Consider the statistics you have just seen
- What might be driving them?
- Consider what the barriers are in your own life that stop you from thriving?

What Are The Barriers To Thriving?

- Time
- Energy
- Family
- Injury/ Illness
- Convenience/ Support
- Mindset
- Motivation
- Tools/ know how

Our Environment Has Changed....

- Technological advances, increase in structured time/ less play, more time indoors, less sleep, less social contact, more ultra processed food, more environmental pollutants, etc



- Our systems are trying to cope but it is not surprising we have increasing levels of difficult behaviour and health issues.
- Can we create environments more aligned with behaviours that nourish us?

The 6 Pillars



Healthy Eating

Lifestyle Medicine supports people to reduce consumption of ultra-processed foods by teaching the knowledge and skills required to follow healthier eating patterns of people's own choosing.



Mental Wellbeing

Lifestyle medicine teaches proven techniques to reduce stress and help people with relaxation. Practitioners support people to find purpose in life and improve health through connection with nature.



Healthy Relationships

Lifestyle medicine supports people to develop and sustain healthy and meaningful relationships and increase social connection to reduce stress and promote both physical and mental health.



Physical Activity

Lifestyle Medicine supports people to choose ways they could incorporate more physical activity in their lives, as well as reducing time spent sitting down.



Minimising Harmful Substances

Lifestyle Medicine supports people to stop smoking, reduce excessive alcohol consumption, avoid addictive substances and behaviours such as gambling or harmfully excessive internet or social media use.

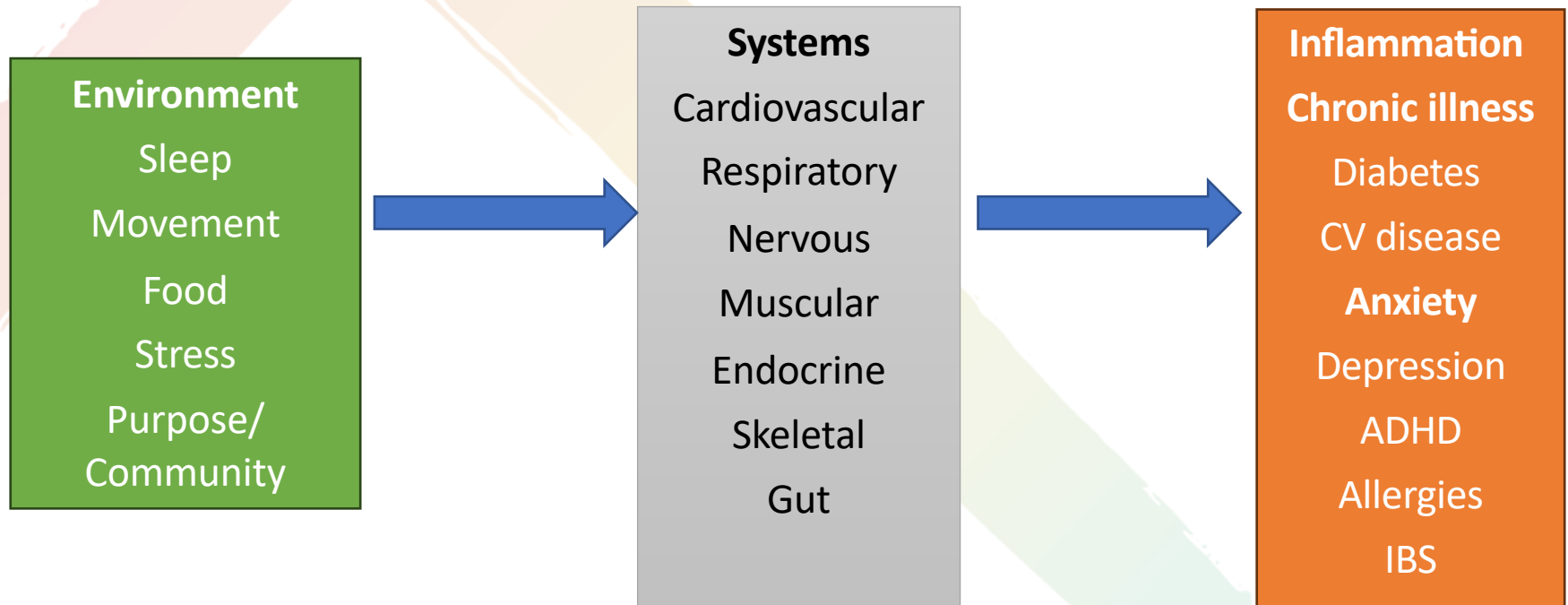


Sleep

Lifestyle Medicine supports people to achieve good quality sleep and avoid behaviours which can impair sleep quality.

Each pillar
can have an
impact on
other pillars

A Root Cause Approach...





Healthy Eating

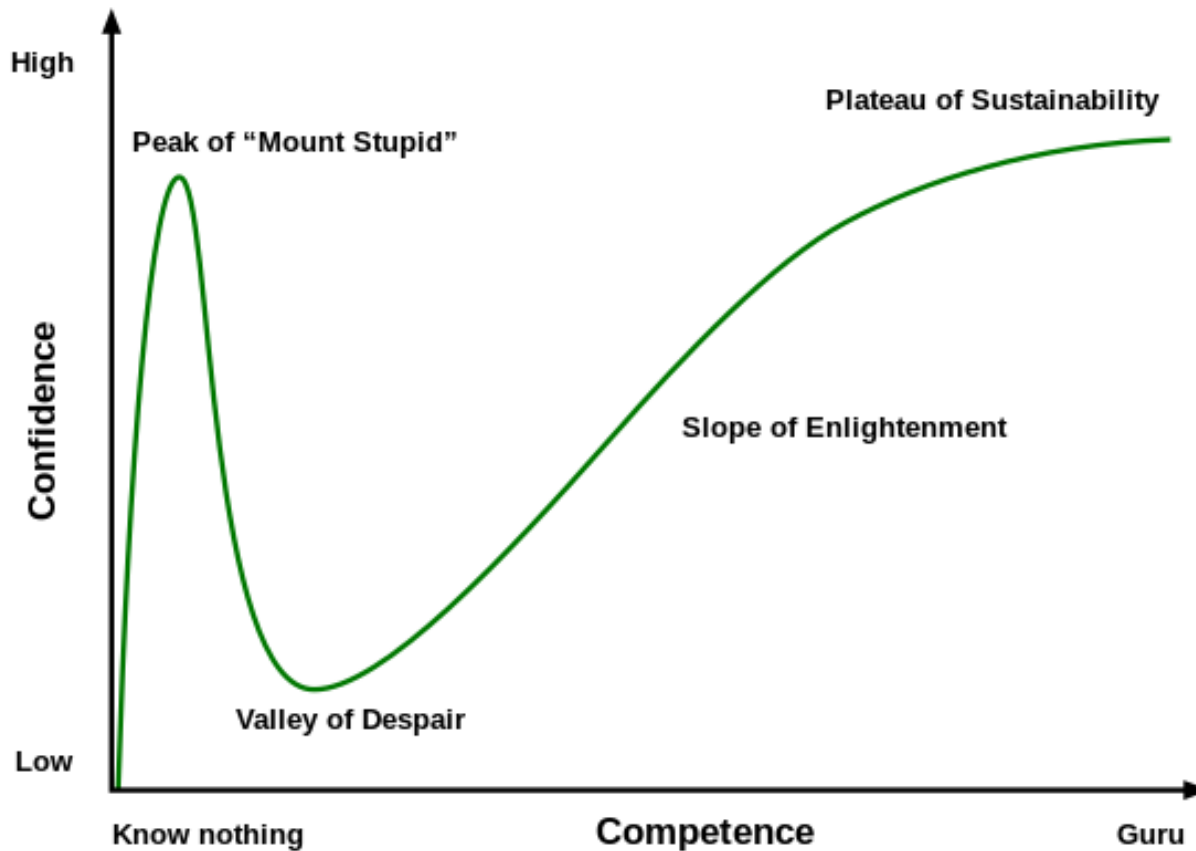
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Healthy Eating...

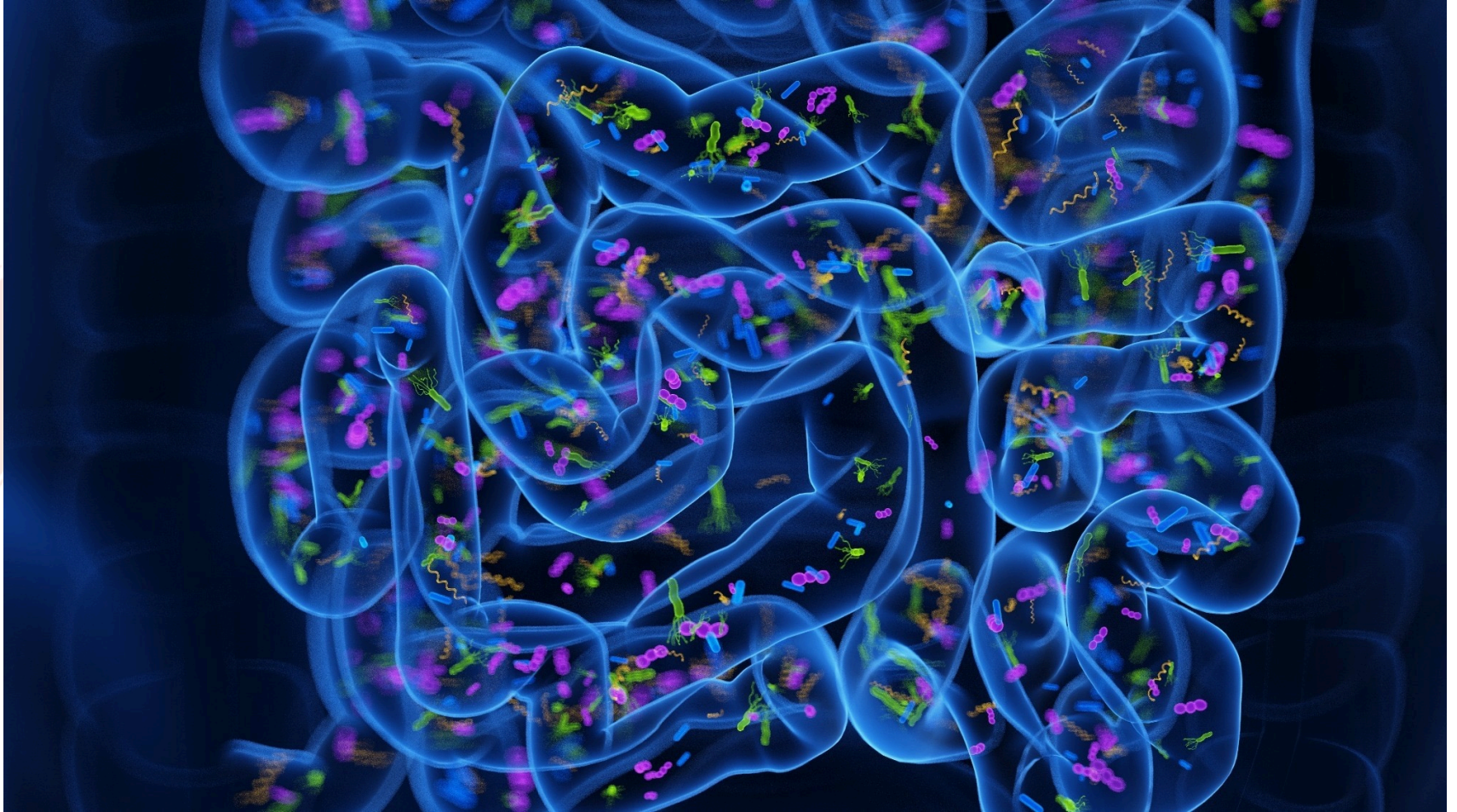
- Microbiome
- Ultra Processed Food (UPF)
- Sugar
- Common Deficiencies
- Intermittent Fasting
- Lunch Box Ideas

Knowledge...

Dunning-Kruger Effect



Microbiome



Symbiosis



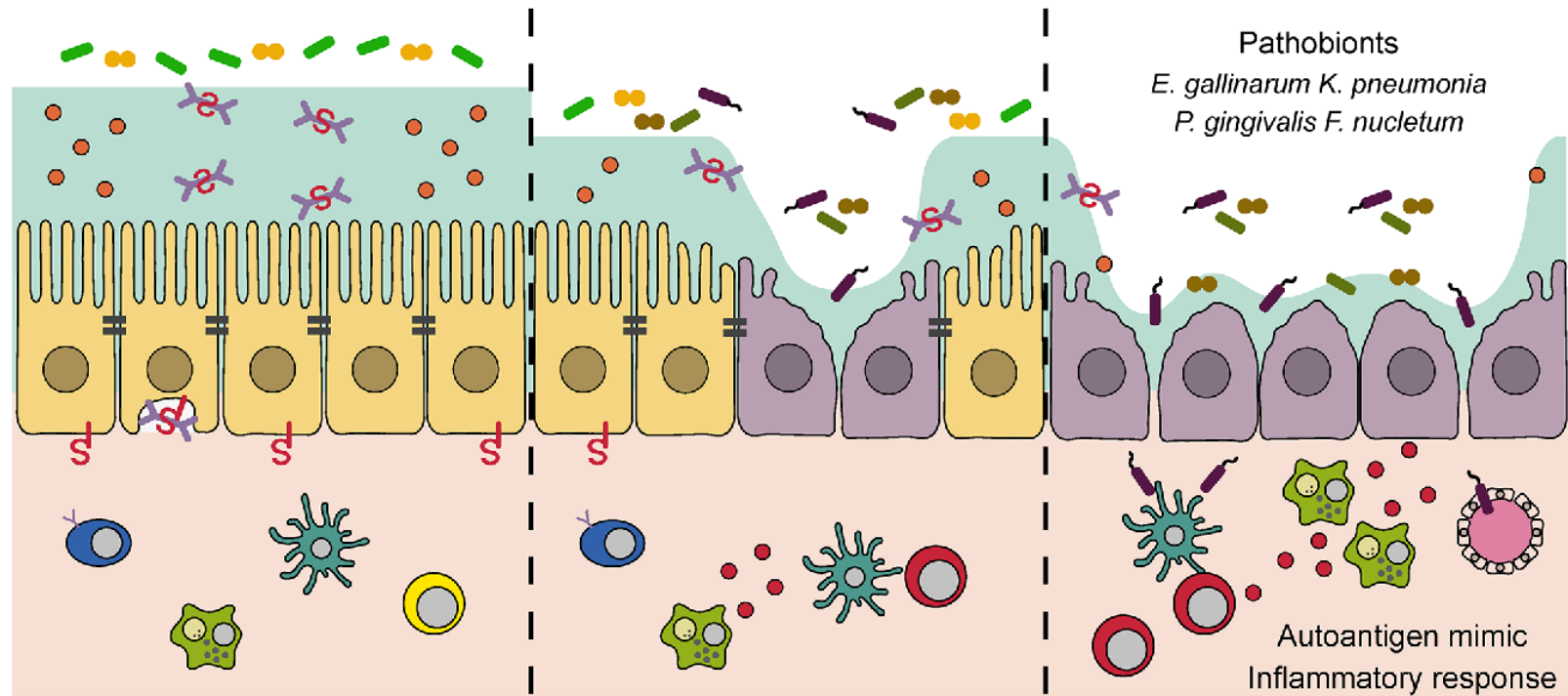
Dysbiosis



Leaky gut syndrome

Genetic factors
Environmental factors

Cytokine response
Epithelial barrier dysfunction



secretory IgA



tight junctions



proinflammatory cytokines



antimicrobial peptides



T cells



macrophages



polymeric IgA receptor



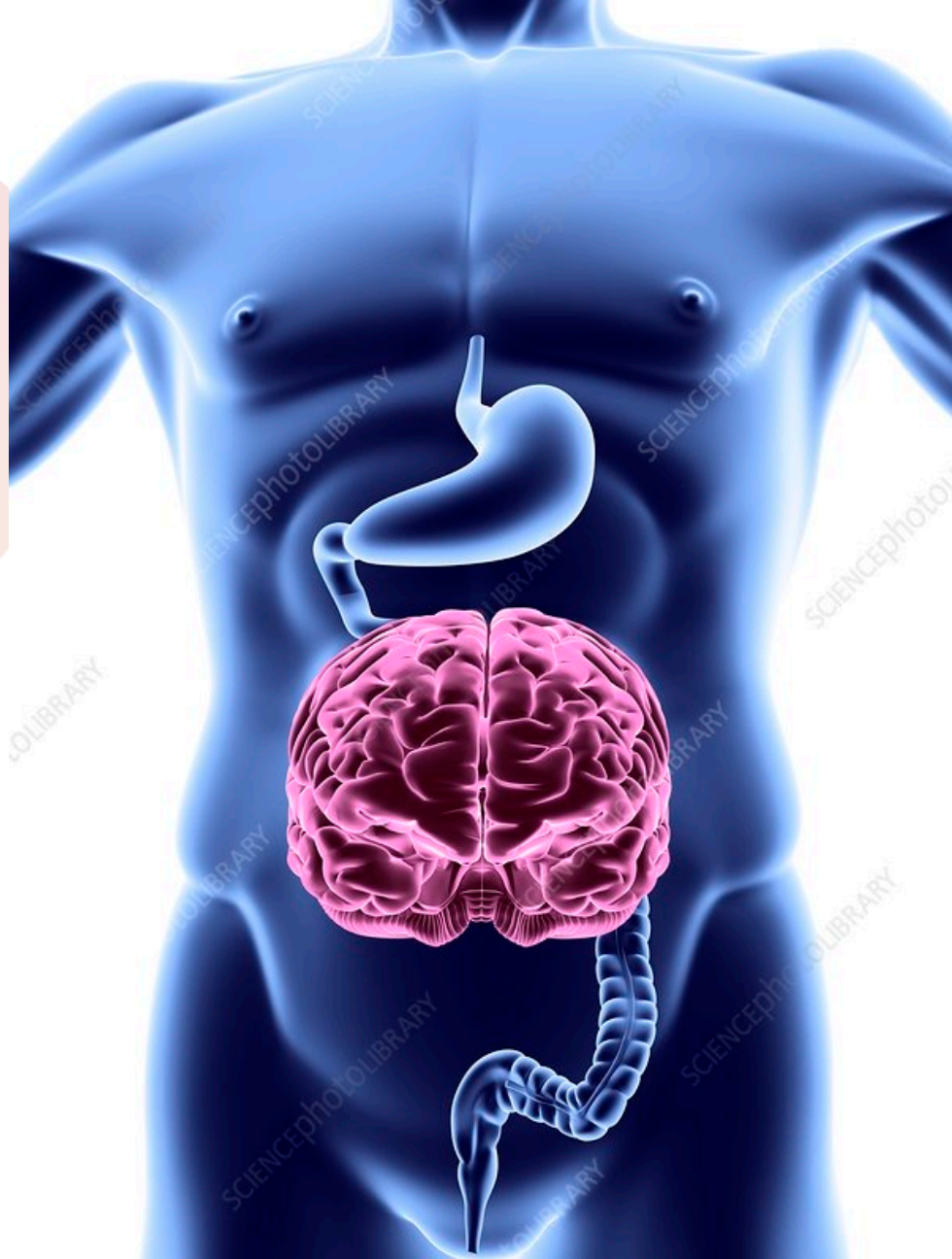
B cells



dendritic cells



Autoimmunity



Eat 30 Different Plants a Week to Build your Gut Microbiome

- Fruit
- Vegetables
- Nuts
- Seeds
- Herbs
- Spices
- Beans
- Lentils
- Wholegrains



Food and 'Food Like Substances'

- Toxins: emulsifiers, preservatives, pesticides, flavourings, colourings, artificial sweetener, antibiotics, microplastics
- Refined Sugar
- UPF
- Eating too often
- Eating too much
- Some nutrients missing
- Too little plants
- Markers of **inflammation** in the body increase
- **Mitochondria not getting energy**



Ultra Processed Food (UPF)

- Food that **you wouldn't be able to recreate in your own kitchen**. If you don't recognise some of the ingredients on the label, it's likely to be an ultra-processed food. It is manufactured to be **convenient and cheap**, has a long shelf life and is generally ready to eat or ready to heat. These foods are designed to be **hyper-palatable**, so you're likely to want to eat more of them.
- Typically, industrially produced UPFs contain additives such as **artificial flavours, emulsifiers, colouring and sweeteners** (which are often cheaper and less likely to go off than natural ingredients), as well as **preservatives** to increase their shelf life. These foods may also contain substances from the **packaging** they are in contact with.

Nutrition Facts

Serv. Size 6 2/25 oz (172g)

Serv. Per Cont. 3

Calories 370

Fat Cal. 160

Amount/serving	%DV*	Amount/serving	%DV*
Total Fat 18g	28 %	Total Carb. 31g	10 %
Sat. Fat 8g	40 %	Fiber 2g	6 %
<i>Trans</i> Fat 0g		Sugars 4g	
Cholest. 40mg	14 %	Protein 20g	
Sodium 1040mg	43 %		

*Percent Daily Values (DV) are based on a 2,000 calorie diet.

Vitamin A 10 % • Vitamin C 6 % • Calcium 35 % • Iron 15 %

INGREDIENTS: Pizza Crust (Wheat Flour, Water, Soybean Oil, Yeast, Sugar, Salt, Calcium, Propionate, L-cysteine.), Low Moisture Part Skim Mozzarella Cheese (pasteurized part skim milk, cheese culture, salt, enzymes), powdered cellulose (to prevent caking) potassium sorbate and natamycin (preservatives), Tomato Sauce (Tomato Concentrate Made From Red Ripe Tomatoes, Salt, Citric Acid, Red Bell Pepper Powder, Natural Flavoring, Spice.), Beef Sausage Crumbles (beef, water, salt, spice, sugar, monosodium glutamate, sodium phosphate, BHA, propyl gallate, citric acid), Water, Tomato Paste (tomatoes, citric acid), Pork Pizza Topping (pork, water, textured vegetable protein (soy flour, isolated soy protein, caramel coloring) spices, salt, sodium phosphate, sugar, garlic powder, monosodium glutamate), Canadian Style Bacon water added (cured with water, salt, dextrose, corn syrup, sodium phosphate, sodium erythorbate, sodium nitrite), Pepperoni (pork, beef, salt, contains 2% or less of water, dextrose, natural flavorings, natural smoke flavoring, sodium ascorbate, garlic powder, oleoresin of paprika, lactic acid starter culture, sodium nitrite, citric acid, BHA, BHT.), Pizza Sauce Seasoning (salt, spices, onion, garlic, natural flavors, parsley)

CONTAINS: MILK, SOYBEANS, WHEAT

UPF's

UPF is now considered a ***food like substance*** rather than food by some scientists.

It is the leading cause of ill health globally. It causes more ill health than smoking and alcohol!

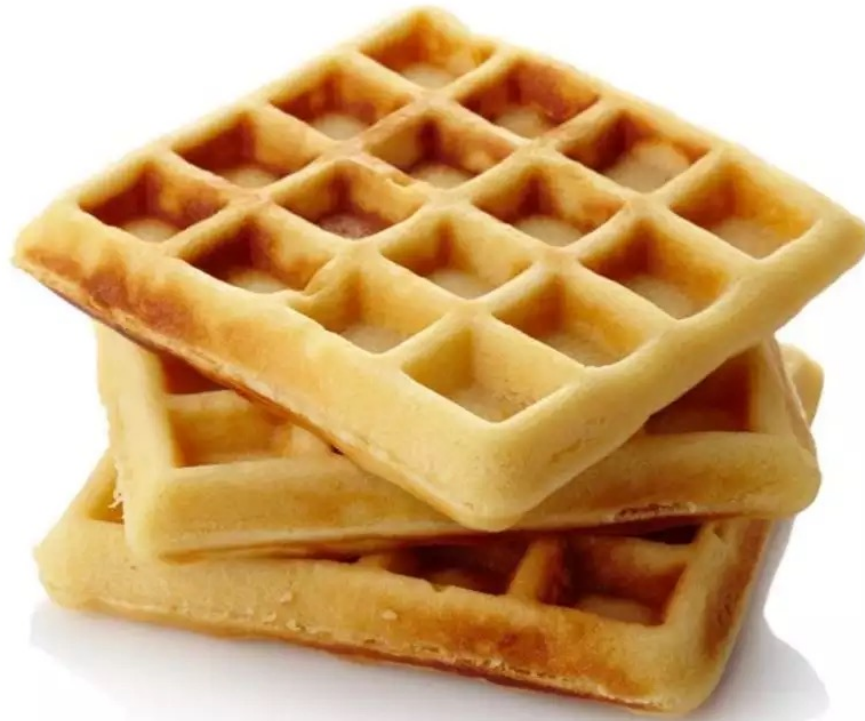
Food or Food Like?



Food or Food Like?



Food or Food Like Substance?



Food or Food Like Substance?



coco pops

-  **RICE**
-  **ADDED GOODNESS***
-  **NO ARTIFICIAL COLOURS OR SWEETENERS**

50% OF YOUR DAILY VITAMIN D NEEDS

Food or Food Like Substance?



Food or Food Like Substance?



Food or Food Like Substance?



Food or Food Like Substance?



B.S. Bratwurst Link 14 oz pkg

Nutrition Facts

Serving Size 1 link (79g)
Servings per container 5

Amount per Serving

Calories 190 Calories from fat 140

%Daily Value*

Total Fat 15g 23%

Saturated fat 6g 30%

Trans fat 0g

Cholesterol 45mg 15%

Sodium 520mg 22%

Total Carb. 0g 0%

Dietary Fiber 0g 0%

Sugars 0g

Protein 13g

Vitamin A 0% • Vitamin C 2%

Calcium 0% • Iron 6%


*Percent Daily Values are based on a
diet of 2,000 calories a day.

Ingredients: Pork, Salt, Spices,
Natural Flavors, Natural Pork Casing.

For recipes and information visit:
www.bouldersausage.com

SAFE HANDLING INSTRUCTIONS
THIS PRODUCT WAS PREPARED FROM INSPECTED AND PASSED MEAT AND/OR POULTRY. SOME FOOD PRODUCTS MAY CONTAIN BACTERIA THAT COULD CAUSE ILLNESS IF THE PRODUCT IS MIS-HANDLED OR COOKED IMPROPERLY. FOR YOUR PROTECTION, FOLLOW THESE SAFE HANDLING INSTRUCTIONS.

 KEEP REFRIGERATED OR FROZEN. THAW IN REFRIGERATOR OR MICROWAVE.

 KEEP RAW MEAT AND POULTRY SEPARATE FROM OTHER FOODS. WASH WORKING SURFACES (INCLUDING CUTTING BOARDS), UTENSILS, AND HANDS AFTER TOUCHING RAW MEAT OR POULTRY.

 COOK THOROUGHLY.

 KEEP HOT FOODS HOT. REFRIGERATE LEFTOVERS IMMEDIATELY OR DISCARD.

COOK 15-18 MINUTES ON MEDIUM HEAT TO INTERNAL TEMPERATURE OF 160° F. AS MEASURED WITH A FOOD THERMOMETER.



Boulder Sausage Company, 513 S. Pierce Ave., Louisville, CO 80027

Food or Food Like Substance?



- Skyr Yogurt (Skimmed **Milk**) (87%),
- Strawberries (6.5%),
- Sugar,
- Maize Starch,
- Lemon Juice from Concentrate,
- Natural Flavouring

Food or Food Like Substance?



- Organic British Milk. High in protein. No added ingredients. No added sugar. Suitable for vegetarians.

Food or Food Like Substance?



Food or Food Like Substance?



Ingredients. Wheat Flour (33%) (with calcium, iron, niacin (B₃) and thiamin (B₁)), Wholemeal Wheat Flour (33%), Water, Yeast, Salt, Vegetable Oils (Rapeseed, Sustainable Palm), Vinegar, Sustainable Soya Flour, Emulsifier: E472e; Preservative: Calcium Propionate; Flour Treatment Agent: Ascorbic Acid (Vitamin C).

Food or Food Like Substance?



Food or Food Like Substance?



Food or Food Like Substance?

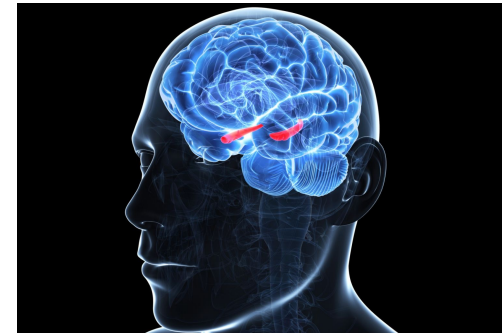


Eat Real Food!

- Limit UPF's – they are not food
- UPF's are the leading cause of ill health globally!

Sugar and Brain Shrinkage

- Seen in brains of children and teenagers with metabolic syndrome
- Blood sugar spikes lead to more AGE's (Advanced Glycation End Products).
- AGE's damage neurons!

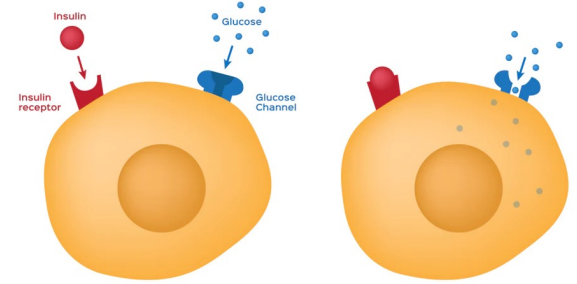


↑ HBA1c → ↓ size of hippocampus

Insulin Resistance

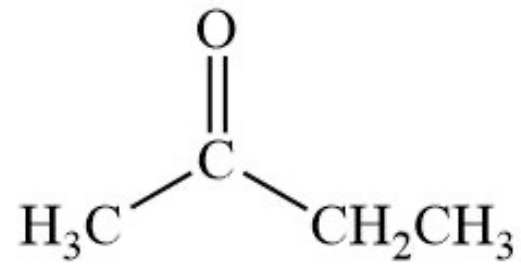
- We should have around **3.5g** of sugar (less than a teaspoon) circulating around in our blood
- When we eat this can increase.
- This leads to an increase in a hormone called insulin

Insulin Resistance



- Occurs if blood sugar levels are regularly too high
- Insulin unlocks the cell so glucose can enter
- Insulin resistance means **glucose can't enter cells** so easily – it then gets stored in fat or around organs as visceral fat or in liver
- **Brain cells** also become insulin resistant so brain cells are not getting energy they need

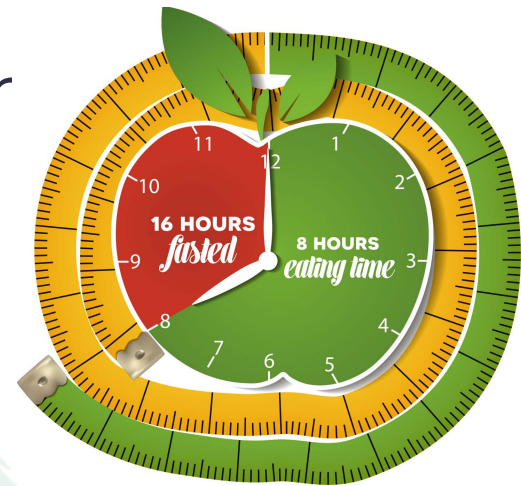
Ketones



- Liver can turn **fat into ketones** which the mitochondria can use instead of glucose
- Brain cells can use ketones even when a person has insulin resistance.
- So brain still gets energy!
- **Vitamin C** and **E** are main antioxidants which clean up the 'exhaust fumes' of respiration

Fasting

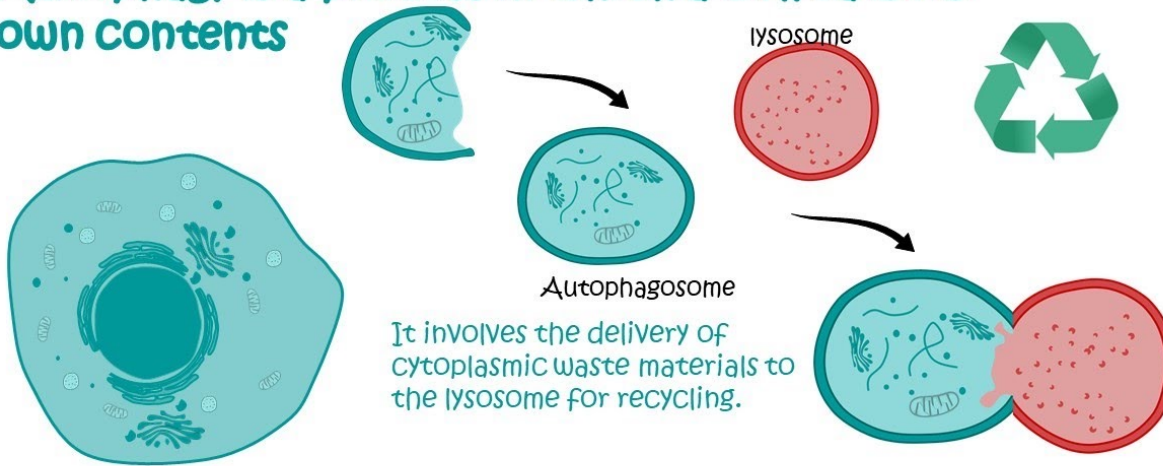
- Fasting will also lead to the body making **more ketones**
- This can provide the brain with energy even if it is insulin resistant
- We also go into **autophagy** after **17 hours**



Autophagy

Greek: Auto (self); phagy (eating)

Autophagy is a process in which a cell eats its own contents



- Cells repair
- Cells are broken down and nutrients recycled

- Mitochondria function improves
- Insulin sensitivity increases

Metabolic Flexibility

- Children tend to be able to switch between fuels very easily
- In adult where there may be damage to their metabolism (increased insulin resistance or with function of mitochondria) they tend to **not be able to use glucose.**
- In this situation switching to a ketogenic diet may provide the brain with more ketones so they can function.
- At the same time this could start to reverse the insulin resistance.

Cancer

- Ketogenic diets and fasting have been used successfully to treat cancer
- Need to bring Glucose Ketone Index(GKI) down to below 2.
- Glucose 'normally' – 5 mmol/l
- Ketones 'normally' – 0 mmol/l
- Fasting: Glucose – 4, Ketones 4 (GKI = 1)

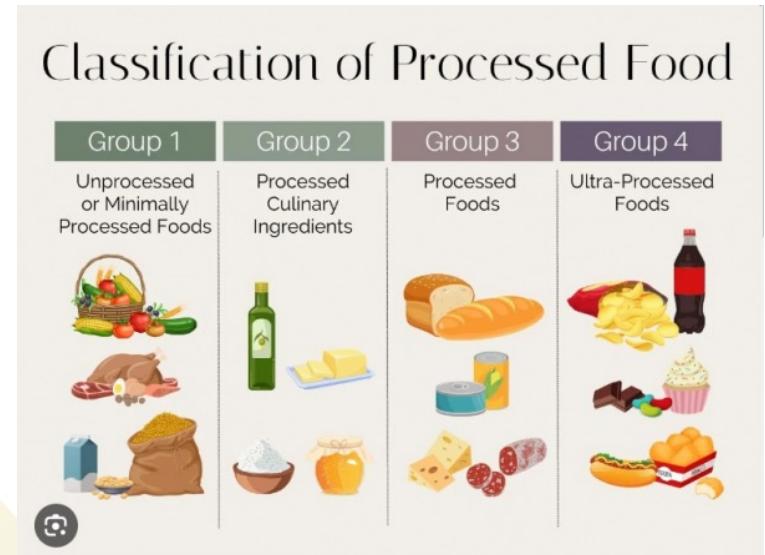
Changes felt when ketones are higher:

- Mental clarity
- Calm and peaceful
- Free of obsession with food
- Concentration increases
- Mood more stable
- ADHD symptoms improve
- Anxiety levels reduce



Common Food Traps We Fall Into?

- Aware of what is UPF
- Eating late in evening
- Eating too often
- Drinking calories



Foods to Limit

- Processed Meat
- Milk
- UPF
- Any drink with calories



Supplements?

Ideally everything from real food!

Common Deficiencies:

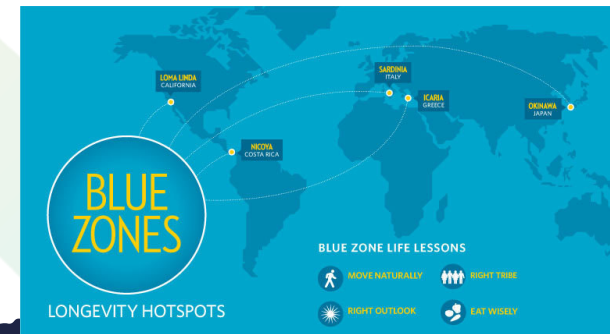
- Vit D
- B Vitamins
- Omega 3 (DHA)



What do the Healthiest People Eat?

Predominantly **plant based** with small amounts of fish, meat, cheese, e.g Mediterranean Diet, Blue Zones

- **More fruit and vegetables, wholegrain breads and cereals, nuts, pulses (peas, beans and lentils) and seeds.**
- **It's rich in monounsaturated fats which are heart healthy, such as olive oil and nuts.**
- **Less/ zero processed foods**



Basic Principles for Healthy Living

- **Control your environment and set some rules!**
- Reduce/ cut out refined sugar and UPF
- Include a wide range of plant based whole foods
- Max 3 meals a day (no snacking)
- Eat all your food in a 12 hour window (less if you can)
- Try to finish eating before 7pm (the earlier the better)

Lunch Box Ideas

- If you are making it yourself from **real food** then it is probably great!
- Remember most **supermarket bread** is UPF!
- Make up a batch and **refrigerate** or **freeze**

Lunch Box Ideas

- Use Chat GPT!
- '5 healthy lunches for primary school children'

Pasta Salad with Veggies

- Whole wheat pasta (like rotini or penne)
- Cherry tomatoes, halved
- Cucumber, diced
- Bell peppers, diced
- Broccoli florets, lightly steamed
- Olives (black or green), sliced
- Italian dressing or olive oil and vinegar
- Grated Parmesan cheese (optional)

Cook the pasta according to package instructions, then let it cool. Toss with cherry tomatoes, cucumber, bell peppers, broccoli, and olives. Add dressing and toss until everything is coated. Sprinkle with Parmesan cheese if desired.



Veggie and Dip Box

- Baby carrots
- Cherry tomatoes
- Cucumber slices
- Bell pepper strips
- Snap peas or sugar snap peas
- Hummus or ranch dressing for dipping
- Whole grain crackers or pita chips

Arrange a variety of colourful veggies in a compartmentalized lunchbox. Add a small container of hummus or ranch for dipping. Include whole grain crackers or pita chips for a satisfying crunch.

- 
- ‘contain eggs and/ or avocado and/ or buckwheat and/ or rice and/ or cheese’

Cheesy Buckwheat and Veggie Bowl

Ingredients:

- Cooked buckwheat groats
- Steamed broccoli florets
- Sliced bell peppers
- Grated carrots
- Sliced cucumber
- Hard-boiled eggs, chopped
- Shredded mozzarella cheese
- Lemon vinaigrette dressing

In a bowl, layer cooked buckwheat, steamed broccoli, bell peppers, carrots, cucumber, chopped hard-boiled eggs, and shredded mozzarella cheese. Drizzle with lemon vinaigrette dressing and toss gently to combine.

- 
- ‘Contain beans’

Rice and Bean Burrito Bowl

- Ingredients:
- Cooked brown rice
- Canned black beans, drained and rinsed
- Sliced bell peppers
- Corn kernels
- Diced tomatoes
- Shredded lettuce
- Shredded cheddar cheese
- Sliced hard-boiled eggs (optional)
- Sliced avocado
- Lime wedges
- Cilantro for garnish



In a bowl, layer cooked brown rice, black beans, bell peppers, corn, diced tomatoes, shredded lettuce, shredded cheddar cheese, and sliced hard-boiled eggs if using. Top with sliced avocado, a squeeze of lime juice, and a sprinkle of cilantro.

Case Study

- *Student C is boy in **Year 8** who has an **ASD diagnosis** and has had a tough time fitting in with secondary school life – he said he did not have any friends in his own year group.*
- *He claimed he was a fussy eater, consumed **4 or 5 coke zeros** a day and did **very little exercise**.*

- Initially he was very resistant to doing anything but he found he that he really enjoyed **boxing**.
- He became very interested in the **gut microbiome** and its impact on overall health and this led to him being willing to try to switch out his coke zero in the morning for a **black coffee**.
- He quite enjoyed this change and it gave him encouragement to make other changes.
- He got a punch bag for Christmas and added a **5 min boxing session** to his day when he returned home from school.
- He also swapped another coke zero for a can of **Hip Pop Kombucha**.
- He became interested in ultra processed foods and wanted to know alternatives to Coco Pops! He decided to try **eggs** which he enjoyed. He also tried chopping **fruit** and adding some **nuts**.

- *He now reports feeling much **happier** and is far more **positive**.*

His mum commented that..

*..‘C has improved immensely over the last few weeks. I can see he is starting to settle into school and his whole demeanour has shifted **from anxious** to being **more confident**. Long may it continue!’*

Time for Action

- Write down one or two simple changes that you are going to make after today's session

Questions...



DIRTY DOZEN



grapes



necturines



strawberries



bell peppers



potatoes



celery



apples



hot peppers



cucumbers



tomatoes



Kale, Collard Greens & Spinach



summer squash & zucchini

Clean Fifteen



cabbage



avocadoes



grapefruit



eggplant



cantaloupe



mushrooms



frozen peas



kiwi



mangoes



onions



sweet corn
if organic



sweet potatoes



pineapple



asparagus



papayas



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