

Mental health and nutrition workshop

Agenda

- Introduction
- What is mental health?
- What has nutrition got to do with my mental health?
- What plays a role?
- What we can control!



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What is mental health?

WHO:

“a state of well-being in which the individual realizes his or her own abilities, can **cope** with the **normal stresses** of life, can **work productively** and fruitfully, and is able to make a contribution to his or her **community**”

MentalHealth.gov:

Mental health includes our **emotional, psychological, and social well-being**. It affects how we think, feel, and act. It also helps determine how we **handle stress**, relate to others, and make choices.

From a nutrition science perspective:

- *Depression and anxiety* – not just a chemical imbalance, but includes neurotransmitters, shifts in neural circuits, alterations in immune and endocrine functioning.
- *Mental health diseases (Dementia, Alzheimer’s)* – risk factors: *hypertension, type 2 diabetes, high cholesterol, poor detoxification and inflammation*

Mental health is intertwined with overall health – you cannot have one without the other



What has nutrition got to do with my mental health?

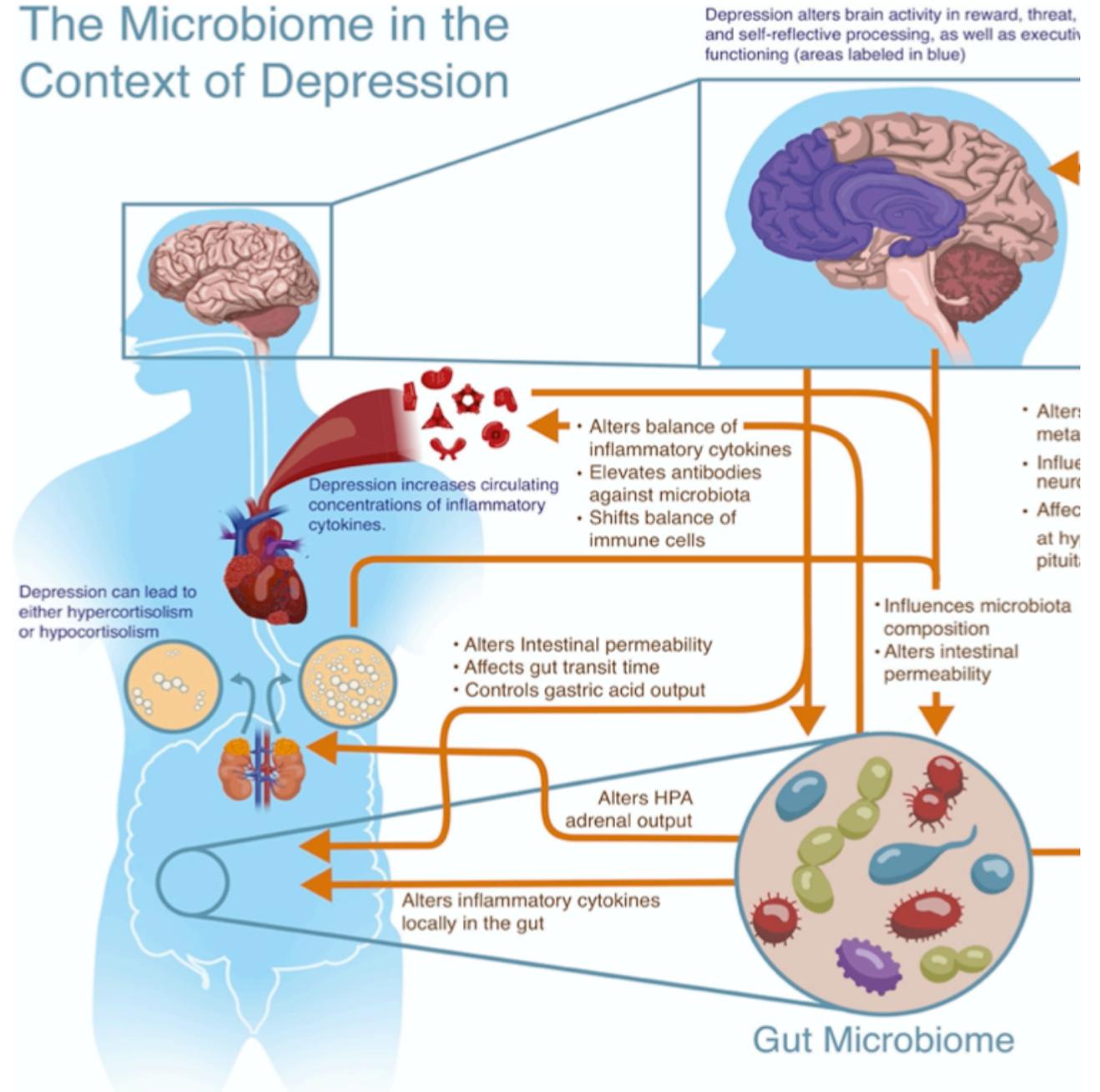
- A RCT study done in 2017 (SMILES) trial illustrated how diet improved mental health scores and resulted in remission in 30% of participants (1)
- A combination of B vitamins (folate, B6 and B12) and omega 3 has been shown to reduce brain shrinkage by 68% (2)
- A 2014 review showed that consuming nuts daily you can improve cognition and prevent neurodegenerative disease
- Depression is associated with an increased risk of developing atherosclerosis, heart disease, hypertension, stroke, cognitive decline, and dementia, immune impairments and metabolic disorders including type 2 diabetes (3)
- Brain function is modulated by blood glucose levels, neurotransmitters, EFA's and B vitamins (4)
- Vitamins essential for basic functioning of the brain: folate, zinc, vit B12, B6, vit C (400-700mg a day), Omega 3 fatty acids (vegan – Vegan DHA)
- Gut health is important – many studies illustrating the importance of gut microbiota in the promotion of mental health.
- Antioxidants are required to neutralise free radicals that damage brain tissue (may play a role in dementia and Alzheimer's – now leading causes of death in the UK)

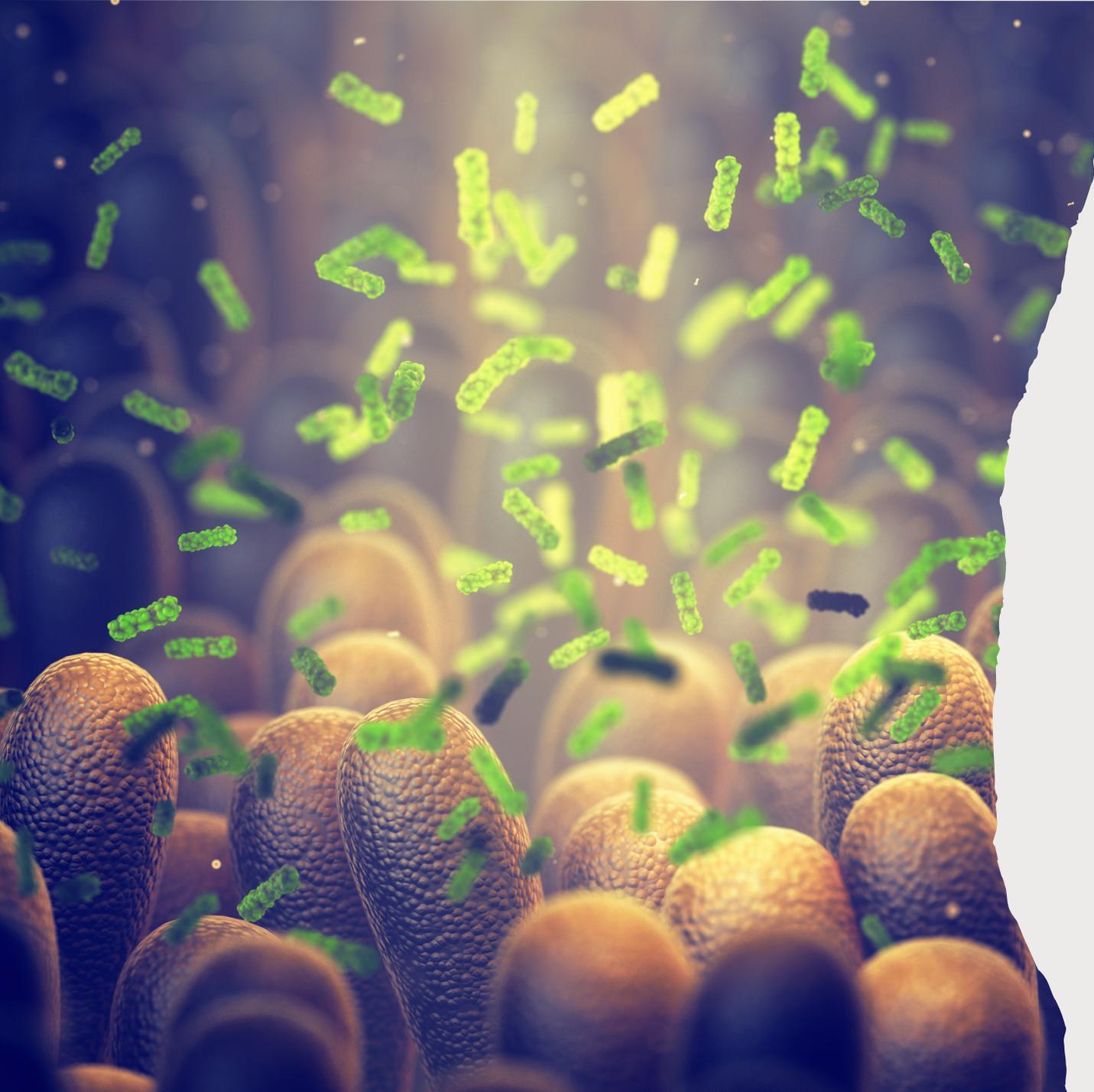


What plays a role?

There are 4 systems of the body that are highly interconnected in behavior – nervous, immune, endocrine and digestive system (gut microbiome)

The Microbiome in the Context of Depression





What we can control: Obtain and maintain good gut health

- Our gut is home to 38 trillion microbes (bacteria, viruses and fungi)
- Gut absorbs our nutrients
- Responsible for detoxification
- Produces vitamins
- Gut microbiome dictates our mental health – helps produce GABA, dopamine and serotonin

How to obtain good gut health

- **Remove** processed and refined foods and sugar from the diet
- Eat a diet high in fibre and colour
- Eat seasonally, and eat the rainbow
- Eat a variety of foods
- Eat fermented foods
- Exercise
- Get outdoors and/ or get a pet!



What we can control: Reduce inflammation

- diets high in processed food, refined carbohydrates , dairy and sugar are pro-inflammatory
- Omega 3: omega 6 ratio is important
- Omega 3 rich foods include: oily fish (SMASH), ground flaxseeds, chia seeds, walnuts, pumpkin seeds, green leafy vegetables
- Omega 6 rich foods: dairy, sunflower oil and vegetable oils, meat, eggs

We also know that omega 3 – specifically DHA is important for brain health and function, as well as B vitamins

RED

- Apples
- Blood Orange
- Red Cabbage
- Cranberries
- Cherries
- Pomegranates
- Radishes
- Red Peppers
- Raspberries
- Strawberries
- Tomatoes
- Red Grapes
- Red apples

GREEN

- Spinach
- Celery
- Broccoli
- Green Peppers
- Brussels Sprouts
- Green Beans
- Cucumber
- Leafy Greens
- Asparagus
- Avocado
- Kiwi
- Courgette
- Green Apples

BLUE/PURPLE

- Blueberries
- Blackberries
- Beetroot
- Plums
- Aubergine
- Purple Carrots
- Figs
- Purple Asparagus
- Purple Broccoli
- Black Grapes
- Elderberries
- Red Cabbage
- Purple Cauliflower

WHITE

- Garlic
- Ginger
- Cauliflower
- Mushrooms
- Onions
- Shallots
- Turnips
- Pears
- Yam
- White Peaches
- Coconut
- Lychees
- Jerusalem Artichokes

YELLOW/ORANGE

- Apricots
- Butternut Squash
- Carrots
- Grapefruit
- Cantaloupe
- Lemons
- Oranges
- Mangoes
- Papayas
- Pumpkin
- Sweet Potatoes
- Tangerines
- Pineapple



Health benefits of eating a rainbow:

- Anti-cancer
- Hormone balance
- Anti-inflammatory
- Cell protection
- Immune health



Brain health

Skin health

Prostate health

Vascular health

Eye health

Heart health

Reproductive health

What we can control: Fight toxin exposure

- Reduce exposure to chemicals (buy organic where possible, especially meat and dairy)
- Aim to eat the rainbow daily
- Aim for at least 6 portions of vegetables a day and 1-2 portions of fruit

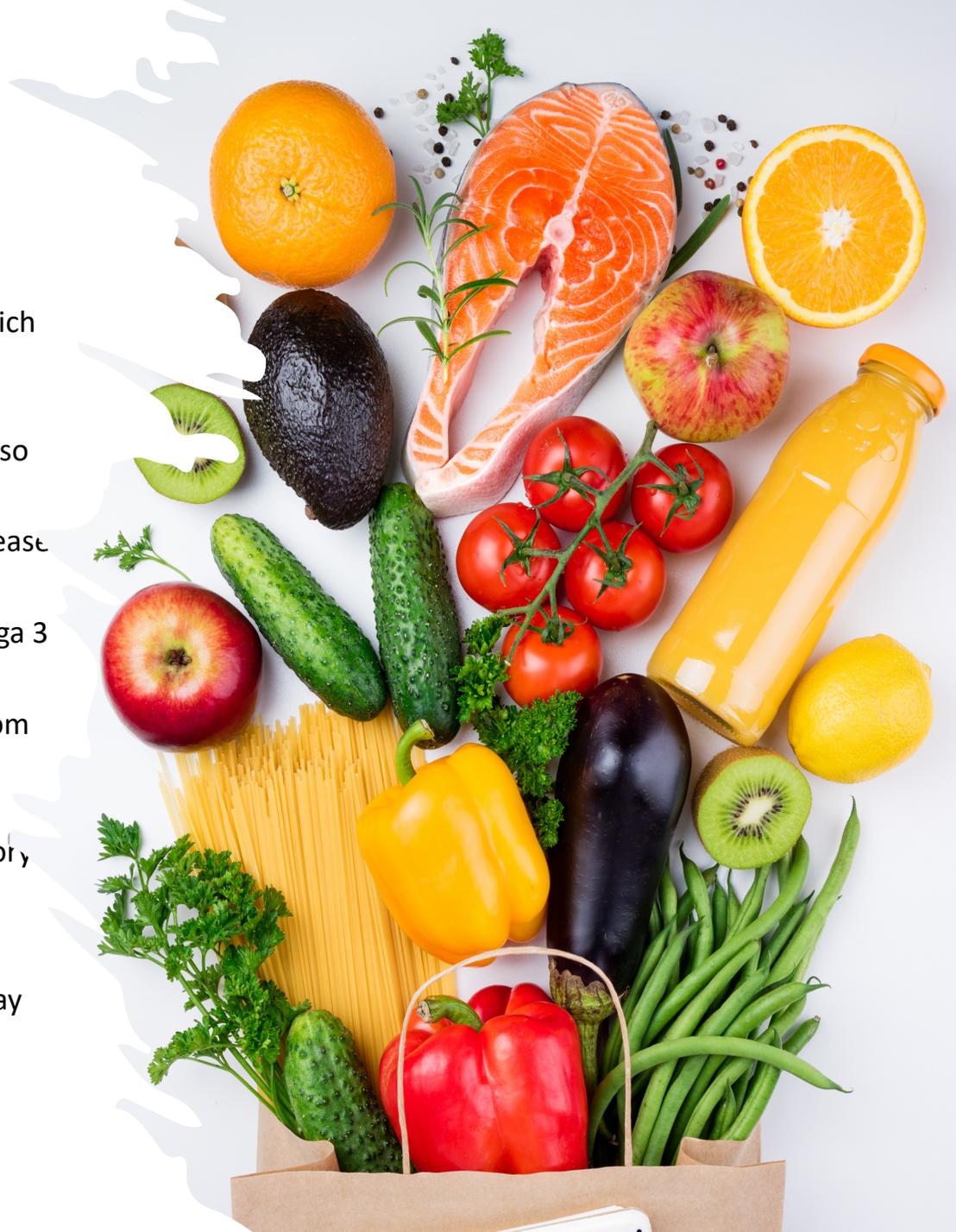


*What we can control:
Other*

Meditation, mindfulness, yoga, Thai chi, deep breathing, exercising outdoors

What we can control: Other brain specific super nutrients

- Avocados: contain monounsaturated fats that help lower inflammation, tyrosine which helps produce dopamine, B vitamins essential for neurotransmitter production and folate which helps lower homocysteine levels (inflammation marker).
- Leafy greens: good source of magnesium (helps calm the mind), low mg levels are also linked with migraines and depression.
- Turmeric: been shown to improve memory, delay age related cognitive decline and ease depression by boosting serotonin and dopamine
- Salmon: 60% of our brain is made of fat, half of that is omega 3. The brain uses omega 3 to build brain and nerve cells, these fats are essential for learning and memory.
- Nuts: loaded with healthy fats, antioxidants and vitamin E. Vitamin E shields cells from damage helping slow mental decline.
- Eggs: help boost tryptophan and tyrosine (EAA) the building blocks of mood neurotransmitters. They also contain omega 3 and choline which can improve memory
- Dark chocolate: tryptophan – needed to make serotonin
- Berries: loaded with antioxidants to help prevent cognitive decline and help reduce inflammation. Animal studies have shown blueberries help improve memory and may even delay short term memory loss!



Vitamins and their sources

Vitamin	Food source
Vitamin B6	Tuna; green leafy vegetables; grass fed meat; chicken; salmon; bell peppers; cauliflower; sweet potato; banana; broccoli; asparagus; tomatoes
Vitamin B12	Sardines; salmon; other fish; lamb; beef; eggs; turkey; chicken; cheese; mushrooms
Folate	Green leafy vegetables; asparagus; cauliflower; papaya; strawberries; lentils
Vitamin C	Papaya; bell peppers; broccoli; Brussel sprouts; strawberries; pineapple; oranges; kiwi fruit; cauliflower; green leafy vegetables; raspberries; tomatoes; asparagus; sweet potato
Zinc	Beef; lamb; sesame seeds; pumpkin seeds; nuts; pulses; garbanzo beans; wholegrains; wheatgerm; some vegetables; dairy; egg yolk; oyster; haddock
Chromium	Shellfish like oysters, shrimp and mussels, dates, tomatoes, mushrooms and Brazil nuts.
Essential fatty acids	Oily fish (Salmon, Mackerel, Anchovies, Sardines, Herring) – best source of DHA, other sources include flaxseeds (always eat ground), walnuts, chia seeds, grass fed butter, pumpkin seeds

*Thank you!
Any
questions?*



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References

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