

Depression and anxiety - food to influence the head-space

Outline of nutrition for depression

1. What happens to the brain in anxiety and depression
2. Depression and anxiety – how it's related to common health problems
3. Foods and dietary patterns that improve symptoms of depression
4. Foods and dietary patterns that worsen symptoms of depression
5. Anxiety – specialised foods and considerations
6. Practical tools for starting in Nutrition and Depression – mindfulness, using food for behaviour change,

The Healthy Brain...	The Depressed/Anxious brain...
Is always making new brain cells	Makes fewer new brain cells
Has low levels of cortisol most of the time	Has higher levels of cortisol
Responds to insulin, leptin, and glucose well	Makes poorer use of these hormones

Diet and Depression and Anxiety:

1. The raw materials for brain cell growth and neurotransmitter production
2. Influences the balance of hormones and inflammation
3. Is an influential component behaviours

How Nutrition and Depression interact with other health areas

Exercise - Produces BDNF - critical for brain cell growth, and brain cell protection. It increases the brains tolerance to stress; and has been shown to be equal to some anti-depressants.

Brain activity- Organisation and direction of the raw materials. Influential in the amount of stress hormones present. Directs and creates growth through thinking.

2. Depression, Anxiety and common health Problems

Obesity and Insulin Resistance

- Increases the risk of Depression by 20-50%
- Depression increases the risk of obesity development by 50-60%

CVD

- Greater level of heart disease is related to greater prevalence of depression
- CVD and depression share many of the same risk factors and pathology
 - Physical inactivity, smoking, social isolation, dietary indiscretion
 - Sympathetic nervous system overdrive, Poorer health of vasculature, inflammation and increased stress hormone production

Diabetes and Insulin Resistance

- Prevalence of depression in those with diabetes is 2-fold greater than healthy populations.

- Depression is associated with a 2 to 5-fold increase in death rates, and worse diabetes disease progression
- People with depression have a 37% to 60% higher risk of developing diabetes
 - Mechanisms are similar between CVD, Diabetes and Depression

Increases other disease risk as well...

Cancer: 1.3 to 1.8 times

Epilepsy: 4 to 6 fold increase

Stroke: 1.8 fold

Alzheimer's: 2.1 fold

Foods and Dietary Patterns that Help Depression

1. Look at the dietary pattern

- Avoid deficiencies and promote adequacy through general healthy eating

Mediterranean diets are advisable to prevent depression

Adherence to the whole dietary pattern is more powerful than just one element!

Foods to Include in the Med	Foods to Reduce
>4tbsp Olive oil >400g Vegetables (>200g raw) 3 fruit 450g Legumes/wk 350g fish/wk Choose white over red meat 1 glass wine/day Tomato based sauces (added herbs/spices/garlic Nuts - ARE A MUST	Red Meat High Fat Dairy <3/wk Pastries/Sweets

2. Individual nutrients may help depression

Omega-3 and Fish Intake

- Involved in brain cell production and anti-inflammation
- May influence a number of neurochemicals that promote a depressed state

Folate

- Involved in the production of Serotonin (AKA: the happy hormone)

- Can be achieved through food, but can be supplemented as well
 - It's only one of many that have an influence on cognitive function

Foods and Dietary Patterns that Increase Depressive Symptoms

Poor food choices is the first port of call

1. Eating the wrong foods will worsen risk and symptoms of Depression

- Overall, a diet containing less healthy items and more processed refined foods is associated with greater depressive symptoms.
 - Relevant to adolescents and adults
- A downward spiral of reward occurs such that cravings, and the following consumption of refined foods results in greater cravings.
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Higher processed food intake

→ Inflammation and high blood sugars → Insulin resistance → Reduced appetite suppression → Weight gain and poorer food choices → Higher processed food intake!

- The brain learns that highly refined foods are a reward for feeling down
- They temporarily help but create a pattern of addiction, resulting in over and repeated consumption.

2. Alcohol consumption

- Alcohol abusers → 2 to 3 fold increase in depression
- A moderate intake of alcohol is not a risk factor, but abuse of alcohol is.

5. Foods for Anxiety

1. Increase food quality and decrease poor quality foods

- Anxiety diagnosis is increased with the consumption of poorer food choices
- There is far less scientific evidence linking anxiety with diabetes and heart disease, but the information available indicates an indirect relationship
 - Higher anxiety, greater inflammation and stress, increased poor food consumption, greater insulin resistance.

2. Protein, carbs and anxiety

- Tryptophan helps to create serotonin in the brain → Exercising increases the level of tryptophan available to the brain → One of the proposed mechanisms (DO NOT SUPPLEMENT...)
- Carbohydrates help to fuel the Pre-Frontal Cortex → the part of the brain that regulate emotions and is used in re-appraisal.
 - By improving fuel supply to this area, better management of emotions is possible.
 - Carbs may also improve tryptophan levels in the brain to aid in serotonin

3. Caffeine and Anxiety

- Extremely personal and specialised to the individual in their response.
- Those with Anxiety disorders, and their family members are more affected by caffeine, in terms of anxiety symptoms.

There are positive effects after 50-100mg of caffeine

- Espresso coffee can vary from 50mg to 250mg per single shot depending on who's making it.

In healthy populations, 250mg of caffeine increases:

- The feeling of fear and stress when they are exposed to a threat; and decreased the ability to tone down the threat response through the PFC (pre-frontal cortex)
- The greater your intake of caffeine in your normal day, the less anxious you become after caffeine intake.

'Short Black Take-away' Messages:

Enjoy in Moderation if you like Coffee!

1. Caffeine is anxiogenic in those with panic disorders
2. Very high individual variability exists for healthy consumers
3. Non-users are likely to experience anxiogenic effects
4. Compounds in coffee may have long-term health benefits

4. Omega-3 and anxiety

- Possible benefits through a decrease in social phobia, as a result of decreased inflammation

The Practical Kit for Working with a Depressed/Anxious Client

Exercise is Key!

- Exercise produces most of the elements needed for optimal brain function.
- It mimics the state of anxiety and makes it feel safer
- It improves CVD, insulin resistance, diabetes → and for the same reasons, depression and anxiety

1. Checklist for the major culprits

How often do they eat the following?

- | | | |
|-------------------|---------------|-------------------|
| - Biscuits | - Pastries | - Juices/Cordials |
| - Sweet desserts | - Lollies | - High fat dairy |
| - Processed meats | - Soft drinks | - Chocolate |

2. Checklist for a healthy dietary pattern

See Mediterranean Checklist

3. Giving food a Purpose

- What are they trying to achieve?
- Will the food they eat affect their ability to reach that goal?
- Can they see that the decisions they make about their food will determine whether they reach their goal or not?
- What are the foods that are going to get them on track?

Mindful Eating

- Swallow the mouthful
- Taste the food
- Feel the food with your tongue
- Chew slowly - 2 minutes per mouthful

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- Smell the piece of food -Then, finally, put the food in your mouth.
- Look at the food you're about to eat
- First of all be present in the moment (minimal distractions).
- Feel the weight and texture

Make FOOD a POSITIVE EXPERIENCE!

**Avoid Restriction, Promote Choice &
Empowerment**