



## PREVENTING DEPRESSION THROUGH FOOD

The MooDFOOD research project has developed evidence based conclusions on the role of food in the prevention of depression.

The project examined evidence for the role of food groups, nutrients, dietary patterns, nutritional supplements, weight loss and food related behaviours (such as mindful eating) in the prevention of depression.

Based on this research, updated recommendations for patients are outlined below.

### Summary of conclusions

#### PREVENTION OF DEPRESSION

- Following a healthy dietary pattern, consistent with national dietary guidelines, may reduce depressive symptoms in the general population. Vegetables, fruit and fish are particularly important.
- Evidence does not support taking nutritional supplements for the prevention of depression.
- For people with obesity, weight loss can reduce depressive symptoms.

#### TREATMENT OF DEPRESSION

- Following a healthy dietary pattern may help reduce depressive symptoms in patients with Major Depressive Disorder (MDD)
- Omega-3 supplements ( $\geq 1\text{g/day}$  EPA and DHA) can have a small beneficial effect on depressive symptoms in patients with MDD using antidepressants.



### What should I advise my patients?

#### PATIENTS WITHOUT DIAGNOSED MAJOR DEPRESSIVE DISORDER:

##### What dietary advice can I provide to help reduce patient's risk of developing depression?

Advise your patients to follow a healthy dietary pattern every day, consistent with your national dietary guidelines. For people with obesity, weight loss can also help reduce depressive symptoms.

##### Should I be suggesting nutritional supplements?

No. Evidence shows that nutritional supplements are not effective in reducing people's risk of depression.

#### PATIENTS WITH DIAGNOSED MAJOR DEPRESSIVE DISORDER:

##### What dietary advice can I provide patients who already have depression?

Just like for the prevention of depression- a healthy dietary pattern may help reduce depressive symptoms.

##### Should I be suggesting nutritional supplements?

Omega-3 supplements ( $\geq 1\text{g/day}$  EPA and DHA) can have a small beneficial effect on depressive symptoms in patients with MDD using antidepressants.

### IMPORTANT - PLEASE NOTE

Presentation with depressive symptoms at primary health care level is a critical time for ensuring patients receive support and are referred to the appropriate mental health care provider. While a healthy dietary pattern may help reduce depressive symptoms, and may help in its treatment – it is not a substitute for appropriate mental health care and medication. In addition, nutritional supplements should never replace appropriate mental health care and medication.

### What is a healthy dietary pattern?



Lots of vegetables



Lots of fruit



Plenty of legumes



Fish every week



Wholegrain breads and cereals



Dairy products, poultry, eggs and nuts in moderation



Low in red and processed meats, as well as alcohol

# The MoodFOOD Project

The MoodFOOD project involved a multi-country collaboration bringing together European experts in nutrition, psychology and food-related consumer behaviour to examine the potential of food in the prevention of depression. Results of MoodFOOD's research as well as expert overviews of available scientific evidence on food, nutrients, dietary patterns, nutritional supplements, weight loss and food related behaviours on the prevention and treatment of depression were integrated and translated into the conclusions below.

## Behavioural Activation for Dietary Change

While the MoodFOOD depression prevention trial failed to reach power to detect a reduction in the incidence of major depressive disorder, secondary analysis found participants who showed a high compliance by completing at least 8 out of 21 Food-related Behavioural Activation (F-BA) sessions over 12 months did show a lower onset of depression. Delivered by trained psychologists in individual and group settings the F-BA sessions aimed to improve subject's dietary patterns through activities which focused on increasing vegetable, fruit, legume and fish intake; swapping to wholegrain breads and cereals and healthy oils; reducing meat intake and having alcohol only in moderation. Subjects were also encouraged to track their food intake and mood to identify unhelpful triggers that prompted behaviours such as unhealthy snacking, and helpful strategies to overcome these such as mindful eating. MoodFOOD has aimed to incorporate elements of behavioural activation in their resource 'Eating for Mental Health'.



### STRONG LEVEL OF EVIDENCE

*Based on consistent evidence from meta-analysis of randomised controlled trials*

#### PREVENTION

- Vitamin D, vitamin B12 in combination with folate and multi-nutrient supplements are not effective in reducing depressive symptoms in the general population.
- Evidence from weight loss trials as well as bariatric surgery trials shows weight loss reduces depressive symptoms in people with obesity.

#### TREATMENT

- Omega-3 supplementation ( $\geq 1\text{g/day}$  of EPA and DHA) has a small effect on reducing depressive symptoms in patients with Major Depressive Disorder (MDD) using antidepressants.
- Vitamin B12 and folate supplements are not effective in reducing depressive symptoms in patients with MDD.

### LIMITED LEVEL OF EVIDENCE

*Based on consistent evidence from meta-analysis of prospective observational studies*

#### PREVENTION

- Meta-analysis of prospective cohort studies shows that eating a healthy dietary pattern may reduce depressive symptoms in the general population.
- Regular intake of fish, vegetables and fruit may help to reduce depressive symptoms in the general population.
- Unhealthy dietary patterns (characterised in multiple forms such as western dietary patterns and those reliant on convenience/ processed foods) seem not associated with the development of depression in the general population.

#### TREATMENT

- Two small trials show that eating a healthy dietary pattern (as recommended by national dietary guidelines) can help to reduce depressive symptoms in patients with MDD.

### AMBIGUOUS FINDINGS

*Available studies show a high level of heterogeneity or conflicting results*

#### PREVENTION

- Although there are some indications that unhealthy food groups such as sugar and refined grains, as well as junk/fast food may have an impact on the onset of depression currently findings on this association are ambiguous.

### INSUFFICIENT EVIDENCE

*There are too few studies to draw evidence based conclusions*

#### PREVENTION

- There are too few studies to conclude whether individual supplements of magnesium, calcium, selenium, folate, vitamin B6, vitamin B12, omega-3 and zinc are effective in reducing depressive symptoms in the general population.
- There are too few studies to conclude whether the reversal of vitamin deficiencies with supplements can reduce depressive symptoms in the general population.

#### TREATMENT

- There are too few studies to conclude whether vitamin D, magnesium, selenium, zinc, calcium, vitamin B6 and multi-nutrient supplements are effective in reducing depressive symptoms in patients with MDD.
- There are too few studies to conclude whether the reversal of vitamin deficiencies with supplements can reduce depressive symptoms in patients with MDD.
- There are too few studies to conclude whether weight loss can help reduce depressive symptoms in patients with MDD and obesity.

## FIND OUT MORE

For more information on the MoodFOOD project visit the MoodFOOD website  
[www.moodfood-vu.eu](http://www.moodfood-vu.eu)