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## **BEATING DEPRESSION – FOOD & MOOD**

Lots of students are mildly or moderately depressed, and it is worth trying lots of ways of lifting your mood. Some of these are to do with lifestyle, time management etc, and affect how emotionally fulfilled you are in life. Others are to do with the biology of what influences your mood and mood swings, such as diet and exercise. The more biological interventions are also worth trying if you are one of the thousands affected by SAD (Seasonal Affective Disorder) which is the depression that sets in at winter times, when the days are shorter and we are exposed to less natural light.

### **THE BIOLOGY OF DEPRESSION**

Depression affects the brain chemistry, and in particular it reduces your serotonin levels. Serotonin is a neurotransmitter which acts like a happiness inducing ingredient – happy in the sense of mellow and content, not high and buzzy (that's dopamine). When your serotonin levels start to lift, your lethargy starts to dissolve away, you stop having plunges into despair, and you start to feel that life's not that bad after all - and most importantly, that you can cope with the challenges it brings.

### **EATING TO COMBAT DEPRESSION**

You can change your diet to prevent and fight depression if you choose to give this a try. The right foods in the right proportions, eaten regularly, can stabilise your blood sugar levels and increase your serotonin and endorphin levels, all of which will lift your mood.

### **SEROTONIN AND ITS BUILDING BLOCK, TRYPTOPHAN**

The best kind of diet for this is one which involves 3 meals and at least 2 snacks a day, and is high in complex carbohydrates (eg. bread, pasta, rice, oats, potatoes) with small amounts of protein at every meal. The protein contains a very important amino acid called tryptophan, which once in the brain breaks down into serotonin. Ideally you should get this protein from vegetarian sources, or poultry, or oily fish, and the fact that it is combined with larger amounts of carbohydrate increases the likelihood of more tryptophan crossing the blood-brain barrier than other amino acids competing to do the same (they are being diverted by the body's carbohydrate-processing mechanisms). So the Atkins Diet, or just separating carbs and proteins, is out!

Naturally occurring serotonin is found in avocados, bananas, tomatoes, plums, pineapple and plantain. But you can boost any that you get from those sources by eating foods containing good levels of tryptophan:

- cows' milk and cottage cheese
- turkey and chicken
- eggs
- oily fish (sardines, mackerel, tuna, salmon, herring)
- nuts (especially almonds) and seeds (pumpkin, sunflower)
- red meat
- tofu and soya beans
- chickpeas and kidney beans
- rolled oats
- baked potatoes (skins on)
- avocados
- tahini (sesame seed paste)

Apart from tofu, soya beans, tahini and possibly seeds, these are all familiar foods that you can grab in the supermarket, so give them a go!

The whole process of serotonin production requires other nutrients to be present, in particular vitamin C, B vitamins, magnesium, iron and chromium. Obviously if you eat a varied, nutrient dense diet, you will be maximising the chances of providing these but taking a high quality vitamin and mineral supplement every day will ensure it.

## **ESSENTIAL FATS**

The other thing that supports serotonin production is sufficient essential fats in the diet, and whilst most of us get enough Omega 6 fats through vegetable oils, margarine, grains, pulses and foods containing these, many of us don't get enough Omega 3 fats, which are just as important for our health. Good sources are oily fish, or cod liver oil capsules if you hate fish, green leafy vegetables, and pumpkin seeds or walnuts, or (flaxseed oil if you're really brave). These are healthy fats – avoid animal fat by all means but don't cut out healthy fats – you need them! They support many vital body functions including hormone production, temperature regulation, mental concentration, libido, vitamin absorption and bowel regularity. They also help keep our hair, skin and nails healthy.

## **BINGE EATING**

Many depressed people comfort eat (we will ignore comfort drinking for the moment!) and this is usually on high sugar/high fat foods. If you think a healthy diet is one containing no fats at all, rather than just easing off fatty meats, pastry, cheese, doughnuts etc, then you are leaving yourself vulnerable to fat cravings which often lead to a binge. Many people find that they remove fat cravings by eating sufficient healthy fats, and this goes a long way towards helping them to stop bingeing.

The other main factor here is sugar. It is important to reduce your consumption of high sugar foods (chocolate, biscuits, cakes, sweets) because if not eaten in conjunction with unrefined carbohydrates, they give a massive sugar high which is always followed by a drastic drop in blood sugar levels. This can lead to a plunge in your mood (and maybe also feelings of guilt about comfort eating), which you may then use as a reason to eat more chocolate or biscuits, and this can start the cycle again. Even a large glass of fruit juice can have this effect. Too much yoyo-ing of blood sugar levels can lead to insulin resistance syndrome, where your body can not deal with the sugar as well as it used to, leading to weight gain or even Type 2 diabetes. Sweet refined foods are best eaten after a substantial meal, and then in moderation, or not at all. Alternative snacks are dried fruit, nuts, fruit, bread, bread sticks, rice cakes, crackers, vegetable chunks or yoghurt. Coffee and other caffeinated drinks leave us vulnerable to the same high-low cycle so if you drink a lot of coffee, tea or coke, you'll be doing yourself a favour when you cut down.

Sweeteners confuse the body by leading it to expect sugar (from the taste), so it releases insulin to deal with the sugar (in converting it to energy); the insulin is left washing around in the bloodstream with nothing to do when the sugar doesn't arrive, and has to be re-absorbed. This can lead to insulin resistance syndrome too, if it recurs often enough.

## **FOLIC ACID**

Apparently some research has shown that a third of depressed people are deficient in folic acid, so it might be worth eating more foods containing it. Nut sources are peanuts, hazelnuts, cashews and walnuts. Sesame seeds contain it, and so do spinach, sprouts, asparagus, broccoli, cauliflower and avocados. If you are taking a multi-vitamin and mineral supplement, it will contain the recommended daily allowance (RDA) of folic acid so don't eat too much of these foods.

## **DON'T DIET – BUT DO EAT HEALTHILY**

As you will have worked out by now, you need to eat your calorie requirements per day (2000 cals for women, 2500 for men, or more if you're very active) and you need every bit of food to give you some nutritional benefit – so neither dieting nor living on coffee, coke and pizzas are going to help you out of depression! A proper breakfast will lift your mood, by boosting your blood sugar right from the start of the day, which is often a particularly bad time for depressed people. And then you need to follow that through with healthy, frequent eating which should give you more optimism and energy.

## **THE IMPORTANCE OF A VARIED DIET**

Perhaps food has always been just fuel to you, something to throw down as quickly as possible without taking much notice of what it is. Or perhaps you have got into the habit of eating only from a restricted range of foods, whether because of your depression, or lack of money, or a reluctance to try new things, or left over dislikes from childhood. Maybe you rely totally on convenience foods rather than handling fresh ingredients, because you can't cook, or think you can't cook, or just can't be bothered to cook! It may then be hard to motivate yourself to eat a wider range of foods, to experiment with different vegetables and fish, or grains, or even meat.

But the more varied your diet, the more likely you are to receive every nutrient you need to be healthy in body and mind. Supplements are very helpful but the body does prefer to get its nutrients in food form, so what better reason to cultivate your inner foodie? Look up some recipes, buy some fresh food and surprise yourself by how quick and easy it is to cook loads of different meals which are good for you. Read some information on what nutrients different foods contain and see if you can try 5 new ingredients, or 5 things you haven't cooked with for ages, this week. If the only nuts you eat are in the pub, pick up some packets of almonds and hazel nuts in the supermarket, and if you haven't tried sardines or avocados or fresh spinach or green lentils or wild rice, give them a go!

## **A NOTE ON CHOCOLATE**

Actually, dark chocolate contains lots of cocoa solids, and not too much vegetable fat or sugar, and it provides a bit of iron, protein as well as the mood boosting chemical phenylethylamine. Look at the label and aim to buy chocolate containing at least 50% cocoa solids (many bars are 70% or higher). It's not the only answer to depression but if you like it, a little a day won't do you any harm, after a meal.

## **A NOTE ON ALCOHOL**

It feels like a stimulant, but acts physiologically as a depressant. So do bear this in mind and try and cut down or even stop for a while, and then monitor how this makes you feel.