

## The purpose of this guide

We hope this guide will provide some useful guidelines for sufferers from Aspergillus related illnesses, their families and anyone who would like to know more about the impact of nutrition on Aspergillus disease.

Nothing contained in this leaflet is intended to be any form of medical advice and must not be taken, or relied upon, as such. Individuals must seek all such advice personally in relation to their particular circumstances.

## Nutrition and the immune system

Maintaining a healthy weight for your height is also important but is not always easy to do when you have a chronic health condition. This is often expressed as Body Mass Index (BMI) or weight in kilograms over height in metres squared (eg 60Kg person, 1 m68 tall,  $BMI = 60 \text{ divided by } 2.82 = 24$ ).

A BMI between 20 and 25 is healthy, lower than this and you may be underweight and undernourished, over this you are likely to be overweight. Being seriously underweight (BMI 16 and below), or significantly overweight (BMI of 31 and above) can weaken the immune system.

Vitamins and minerals are essential in boosting your immune system and helping you fight off infection. Having a good intake of vitamin and mineral rich foods: colourful fruit and vegetables, wholegrains, eggs, meat, fish is important. Frozen vegetables are also high in vitamins.

Good food hygiene includes:

- 1 Cooking eggs well and avoiding undercooked/raw eggs, eg: in home made mayonnaise and mousses.
- 2 Cooking meat well especially chicken and pork.
- 3 Eat all foods within best before and use by dates.
- 4 In your fridge, store meat and poultry well away from food which will be eaten raw.
- 5 Also choose cafes/take-aways/restaurants carefully. Places to avoid are those with visible litter, dirty tables, where staff handle food and money without washing hands/wearing gloves, cold food served lukewarm. Good practice includes hygienic looking premises, food hygiene certificates on display, staff not handling money and food, hot food trays emptied completely before fresh food is added, high turnover of customers (food is less likely to be kept over for the next day).
- 6 Also see the Food Standards Agency website ([www.food.gov.uk](http://www.food.gov.uk)) for more useful information on food safety.

Exercise has been shown to boost the immune system in a variety of diseases. Regular exercise may help, even relatively gentle activity can be beneficial: walking, gardening, cycling, swimming. Exercise in the swimming pool helps reduce impact on joints and may be easier if you are breathless.

## A guide to Nutrition and Health



*Aspergillus fumigatus*



## Diet and your energy levels

Energy is linked to many things e.g. emotions, sleep levels, exercise and diet.

Where diet is concerned it may help to bear in mind the following:

- Regular meals help maintain even blood sugar levels and therefore a constant supply of energy. Also aim to have a breakfast consisting of a source of protein (eggs, baked beans/yoghurt) and of starch (porridge/toast) as it seems that by mixing these two nutrients, better energy levels are maintained. Main meals tend to naturally consist of a mixture of the two e.g jacket potato (starch) and baked beans and cheese (protein) or a sandwich with some form of protein filling (egg/cheese/meat/fish).
- Maintain even sugar levels: by not going for more than 3-4 hours without food, and avoiding high sugar foods. There is growing interest in the Glycaemic Index (GI) of different starchy foods (the amount of insulin released as a result of eating a particular food). The higher the GI, the more insulin is produced, sugar levels drop and this can result in fatigue. Choose low GI foods where possible e.g. wholemeal /wholegrain bread, wholegrain /Basmati rice, al dente pasta, jacket potato (not mash). Having a starchy food with a source of protein can also lower its GI, for example have a jacket potato with tuna or bread and ham in a sandwich.
- Drink fluids throughout day, you need about 3-4 pints or 1.5-2 litres per day. This should not all be taken as caffeine/sugar containing drinks.
- If eating makes you breathless or your appetite is small, smaller more frequent meals may be better & easier for you to tolerate.
- Again, regular exercise can help boost energy levels.

## Diet and steroid therapy

If you are on long term, or frequent steroid therapy, you may experience side effects: weight gain or sometimes loss, also weakened muscles and bones.

- To protect muscles, aim for a good protein intake (have a source of protein at each meal). Exercise will also help: walking regularly, lifting gentle weights, swimming.
- For bones, calcium and vitamin D are important. Calcium is found most abundantly in dairy foods. Three portions a day should cover most adults' needs e.g. one yoghurt, one helping of cheese and a milky drink. If you do not like dairy foods, fish with bones e.g. sardines, pilchards, whitebait, also white bread, scones, spinach are also good sources. For vitamin D, eat oily fish with bones e.g. sardines, pilchards, herrings, tuna, trout, and also vitamin D supplemented margarine (most brands are supplemented). Vitamin D is also synthesised by the skin as a result of sun exposure. 5-10 minutes per day are sufficient, on hot days make sure this is outside the peak sunburning hours of 11 am to 3 pm.
- The evidence on the benefits of calcium and vitamin D supplementation via tablets (over and above the daily recommended amount for these nutrients) for those on longterm steroid therapy is a little hard to interpret. Different studies

(done on patients with conditions such as chronic inflammatory bowel disease and asthma) draw different conclusions. If you are concerned about potential bone loss, discuss the possibility of supplements with your specialist doctor. This may be most appropriate if you do not eat calcium and vitamin D rich foods regularly.

If you are gaining more weight than you are happy with, the following could help:

- Cutting down on high fat foods. These include cheese, most puddings, fried foods, pastry, meat products eg sausages and pies, chips. Alternatively choose lean meat or fish, boiled/jacket potatoes, pasta, boiled rice instead and as much fruit and vegetables as you like, as well as low fat dairy foods: semi skimmed milk, low fat yoghurt, cottage/lower fat cheeses.
- Again exercise may be helpful.

## Examples of food with different GI values

High GI	Intermediate GI	Low GI
Glucose	Sucrose	Fructose/Lactose
Maltose	Honey	All Bran/Muesli
Lucozade	Sports Drinks	Porridge/Special K
Jelly beans	Fanta/Cola	Sultana Bran
Cocopops	Shreddies	Barley
Cornflakes	Sustain	Bulgar Wheat
Rice Krispies	Ryvita	Basmati Rice
Weetabix	Oatmeal Biscuits	Noodles/Pasta (all types)
Shredded Wheat	Shortbread*	Fruit Loaf
Brown/Wholemeal Bread	Arrowroot	Heavy Grain Bread
White Bread	Pineapple	(e.g. Granary/Multigrain)
French Stick	Papaya	Pitta Bread/Rye Bread
Brown/White Rice	Raisins	Chapatis
Waffles	Sultanas	Sponge Cake
Bagel	Squash	Banana Cake*
Crumpet	Mars Bar*	Apple Muffin*
Morning Coffee	Muesli Bar*	Low-fat Ice Cream
Water Biscuits	Taco Shells*	Milk/Yoghurt
Puffed Crispbreads	Full Fat Ice Cream*	Fish Fingers
Parsnips	Croissant*	Peanuts*
Baked Potatoes	Beetroot	Sausages*
Chips*	New Potatoes	Crisps*/Popcorn
Pumpkin	Pea Soup	Lentil/Tomato Soup
Swede		Chocolate*
Broad Beans		Apple/Apricot/Banana/
Corn Chips*		Cherries/Cantaloupe
Water Melon		Melon/Grapefruit/Grape
		/Kiwi/Mango/Orange/
		Peach/Pear/Plum
		Apple Juice/Orange Juice
		Carrots/Peas/Sweetcorn
		Sweet Potato/Yam
		Baked Beans/Butter
		Beans
		Chick Peas/Haricot
		Beans
		Kidney Beans
		Lentils/Soya Beans

\* Foods containing relatively high amounts of fat – choose low fat options where available



Medical knowledge and opinion varies according to the extent and availability of research and differing assessments of such research by different practitioners.

Whilst the information contained in this leaflet has been compiled by the Aspergillus Trust from sources believed to be reliable, the Trust cannot guarantee the accuracy or completeness of such information and cannot accept any responsibility for any use of such information.

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Sometimes despite your best efforts to maintain a healthy diet & weight, people with Aspergillus disease struggle to get good nutrition and lose weight. If this happens supplements may be needed and will be prescribed by your GP or dietician.

## What further help is available for sufferers?

Aspergillus related illnesses are long-term conditions, and can have a negative impact on an individual's quality of life. Although medication is available, help and support are often helpful.

- Aspergillus Support Group is open to everyone, including those living outside the UK. This is a large group supporting all kinds of aspergillois: <http://uk.groups.yahoo.com/group/AspergillusSupport/>
- The Aspergillosis Patients Support webpages are very informative and are written for patients: <http://www.nacpatients.org.uk>
- Also see our lively social Facebook community group at <https://www.facebook.com/groups/aspergillusupport/>
- Look out for our Aspergillosis Community Booklet available in clinic, published monthly
- We hold a Aspergillosis Community Meeting every first friday in the month in the Altounyan Suite (ask for directions at reception), all are cordially invited to attend
- Other useful websites include:  
[www.aspergillus.org.uk](http://www.aspergillus.org.uk)