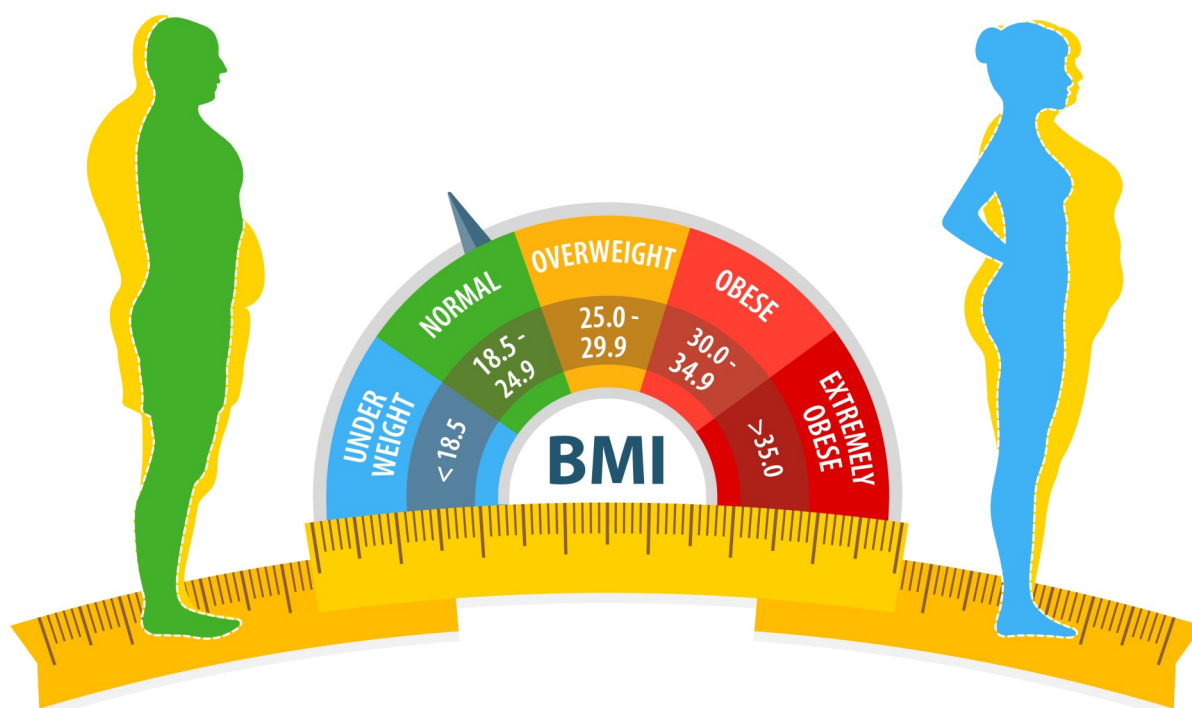


Eating Well for a Healthy Weight

Eating well and maintaining a good body weight is essential for everyone but especially when you have cystic fibrosis (CF). A healthy body weight will help reduce frequency of chest infections, improve or maintain your lung function and can generally make you feel well in yourself.

However, being overweight can increase your risk of other health problems too such as high blood pressure, sleep apnoea (a condition that causes interrupted breathing during sleep), diabetes and being very overweight or obese may affect your lung function.

Body Mass Index (BMI) is a measure your dietitian will use to assess if you are within the healthy weight range for your height. The ideal range is 20-25, but for CF it is recommended that women aim to have a BMI of 22 and men a BMI of 23.



Muscle Mass: In addition to BMI it is important to consider your body composition. A higher muscle mass is linked to improved lung function, regardless of BMI.

Body Image: As well as the numbers, it is important to feel comfortable in your own skin. We know that gaining / losing weight can cause emotional changes too. Your dietitians and psychology team are always here to support with these emotions.

What about CFTR modulators and my weight?

Research has shown that most people do gain some weight when they start on CFTR modulators, which may mean adjusting your diet in order to continue to maintain a healthy weight (BMI 20-25kg/m²). The reason for this weight gain includes; an improved appetite, less frequent infections, less abdominal symptoms & improved absorption of food! As well as some evidence showing your may body need less energy overall!

What should I be eating? What is a healthy diet?

A healthy balanced diet should be based on the principles of the Eatwell Guide below. Each portion of the plate represents how much of the food you should be eating (e.g if you lay out all the food our eat in one week, it should look like this).

Fruit & vegetables and starchy foods should make up the most of our diet. It is important to eat a variety of foods to ensure you have a variety of nutrients.

Respiratory Directorate—Cystic Fibrosis

Information for Patients

Fruit & Vegetables

Fruit and vegetables should make up roughly 1/3 of our diets. They are low fat and make an ideal snack if you are trying to prevent weight gain or lose some weight. They are an important source of **vitamins and minerals, for overall health.**

Aim for a mixture of different coloured fruit and vegetables each day. Think of a rainbow!

How can I include more fruit and vegetables in my diet?

5 portions (80g / 3 tablespoons) a day is the recommended amount for the general population. 80g (3 tablespoons) is a portion of fruit and a portion of vegetables.

However there is no specific amount recommended for people with CF, therefore just try to have some each daily ideally as part of every meal or some as a snack.

Examples:

- ◆ 1 apple, banana, pear or orange
- ◆ 2 plums, kiwi fruits, satsumas or similar sized fruit
- ◆ 1 slice of large fruit such as pineapple or melon
- ◆ 1 heaped tablespoon of dried fruit such as raisins, sultanas or apricots
- ◆ 1-2 handfuls of strawberries, grapes, cherries or blueberries
- ◆ 3 heaped tablespoons of vegetables e.g. peas, sweetcorn
- ◆ ½ avocado
- ◆ A small cereal bowl of salad
- ◆ 2 broccoli spears, 8 cauliflower florets

Fruit Juice: 1 glass (200ml) of fruit juice (Fruit juice will only count as 1 portion of fruit, regardless of how much you drink. It is also high in sugar - if you are diabetic only drink with a meal)

How to start introducing Fruit/vegetables:

- 1) Blend into soup / sauces / smoothies
- 2) Add dried fruit to cereal
- 3) Use tinned / frozen options for ease

Trying to Gain Weight?

- ◆ Have a bowl of fruit with ice cream or full fat / Greek yogurt
- ◆ Have banana and custard as a snack or pudding
- ◆ Add cheese sauce or grated cheese to vegetables
- ◆ Avocados are very high in calories – add these to sandwiches or side salads
- ◆ Add fruit to a high energy ice cream milkshake / smoothie

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Information for Patients

Bread, Rice, Potatoes and Pasta—'Starchy Foods'

These foods are carbohydrates and should make up a 1/3 of what we eat, so remember to include them at each meal time.

They are a good source of **energy**, provide vitamins and minerals and provide **fibre**.

What is a 'starchy food'?

- ◆ Bread
- ◆ Bagels
- ◆ Potatoes
- ◆ Rice
- ◆ Pasta
- ◆ Breakfast cereal
- ◆ Noodles
- ◆ Crackers

Wholegrains

If you choose **wholegrain varieties**, you will be increasing your fibre intake. This can help keep you fuller for longer so you will be less tempted to snack between your meals.

Wholegrain foods also provide vitamins and minerals such as B vitamins, folic acid and zinc.

How can I choose wholegrain varieties/Make Healthier choices?

- ◆ Choose wholemeal, granary or seeded breads
- ◆ Try brown rice or whole-wheat pasta
- ◆ Try breakfast cereals such as porridge or Weetabix
- ◆ Have boiled potatoes or a jacket potato instead of chips

Low Appetite?

Foods high in fibre can fill you up so choose lower fibre foods (white options) if your appetite

Tips if your trying to increase your weight:

- ◆ Fill a 1/3 of your plate with carbohydrate foods
- ◆ Have a low fibre carbohydrate based snack in between meals – try toast, cereal, instant noodles or crackers with cheese

Protein: Meat, Fish, Eggs and Alternatives

These foods contain protein. Protein is needed by the body for growth and repair.

Aim to include a protein food in each meal.

Meat & Fish:

- ◆ Meat contains many vitamins and minerals such as iron (red meat, e.g. beef/lamb/ham) , zinc and vitamin B12
- ◆ Oily fish (e.g. salmon, mackerel, trout, pilchards and sardines)

Vegetarian Sources of Protein

- ◆ Include: Beans and lentils, eggs, nuts, Tofu, Soya, "Quorn", plus other alternatives
- ◆ If vegetarian or vegan must include a range of sources to ensure you get all essential proteins
- ◆ Beans and Lentils (e.g chickpeas/baked beans/butter beans/tinned or dried lentils)—count as one of

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Information for Patients

Trying to eat healthier?

- ◆ Choose leaner meats (e.g. chicken/turkey) and reduce your intake of processed options (e.g. bacon and sausages)
- ◆ Choose some vegetable options—as these are lower in energy and keep you fuller for longer
- ◆ Limit red meat to twice a week—due to its higher fat content which can increase cholesterol and your risk of developing bowel cancer if eating >90g / day (see below)
- ◆ Try baked / grilled meats and fish rather than fried
- ◆ If you choose to fry, use a non-stick frying pan so you do not need to add any oil and drain off any excess fat
- ◆ Remove visible skins and fat
- ◆ Aim for 2 portions of fish per week (x1 oily option)

These foods contain calcium, protein and vitamins A+D. Calcium is essential for bone health. It is recommended that people with CF have almost twice the recommended daily amount of calcium

Food/portion size	Alternative food/portion size
3-4 slices roast beef/lamb/pork	Have 2 slices
Cooked breakfast with 2 sausages and 2 rashers of bacon	Have 1 sausage and 1 rasher of bacon, have extra beans/tomatoes/mushrooms and eggs
Quarter pounder beef burger	Order a standard size burger with cheese
Ham/beef/corned beef sandwich	Swap to chicken/egg/fish fillings a couple of times a week
Chilli con carne or spaghetti bolognese made with minced beef	Add extra veggies and beans or make with a vegetarian alternative such as soya mince or Quorn
8oz steak	5oz steak
Lamb curry	Chicken curry
Steak pie	Chicken or vegetable pie
Meat based meals every day	Try 'meat free Monday' – why not try a new recipe using fish or beans/lentils or try a soya or mycoprotein meat alternative?

Milk and Dairy Foods

(1000 - 1200mg/day).

What foods are included?

- ◆ Milk
- ◆ Cheese
- ◆ Yogurts
- ◆ Calcium fortified alternatives

How can I achieve 1000mg calcium each day?

1 pint of milk
1 yogurt
30g / small match-box sized piece of cheese

Making Healthier Choices

- ◆ Low fat dairy products often contain more calcium than the full fat varieties
- ◆ Use semi-skimmed or skimmed milk instead of full fat milk
- ◆ Choose low fat yogurts instead of thick and creamy
- ◆ Use a stronger flavour cheese, so you need to use less of it
- ◆ Grate cheese rather than slicing it
- ◆ Use a reduced fat cheese or cottage cheese

What dairy foods should I choose if I want to gain weight?

- ◆ Full fat 'blue top' milk
- ◆ Full fat yogurts, often labelled as 'luxury'
- ◆ Full fat Greek yogurt
- ◆ Add grated cheese onto foods such as pasta, mashed potato and vegetables

How can I meet my calcium requirements if I do not like dairy foods?

- ◆ Sardines
- ◆ Pilchards
- ◆ Dark green leafy vegetables e.g. broccoli
- ◆ Nuts such as almonds
- ◆ Baked beans
- ◆ Some breakfast cereals are fortified with calcium
- ◆ Calcium enriched soya milk

Calcium Supplements

Your dietitian or doctor may recommend a calcium supplement such as Calcichew or Adcal caplets

Saturated and Unsaturated Fats

Fat is high in calories. Although fat contains a lot of calories it is essential for a healthy balanced diet and provides the fat soluble vitamins A, D and E.

There are 2 types of a fat – saturated and unsaturated.

Saturated fat can lead to a high cholesterol level which can contribute to an increased risk of heart disease.

Unsaturated fats are monounsaturated and polyunsaturated. These types of fat are the 'healthier' types of fat. However, they still contain the same amount of calories as all other types of fat so if you want to lose weight, you need to reduce the total amount of fat in your diet.

Foods containing saturated fats:

- ◆ Butter
- ◆ Lard
- ◆ Cream
- ◆ Cakes, biscuits, crisps
- ◆ Pies, pastry
- ◆ Cheese
- ◆ Ice cream
- ◆ Coconut fats e.g. butter

Foods containing unsaturated fats?

- ◆ Oily fish e.g. mackerel, salmon, trout, sardines
- ◆ Nuts and seeds
- ◆ Avocados
- ◆ Cooking oils such as sunflower, rapeseed, olive
- ◆ Olive oil and vegetable oil based spreads e.g. Bertolli, Flora

How can I include more unsaturated fats in my diet?

- ◆ Snack on nuts and seeds instead of crisps and biscuits. Try almonds, seeds and sunflower seeds walnuts, Brazil nuts, pumpkin
- ◆ Add olives to salads or pasta dishes or just have them as a snack
- ◆ If using any fat to cook use vegetable oil or olive oil instead of butter or lard
- ◆ Add avocados to salads and sandwiches or have guacamole as a dip
- ◆ Have oily fish once a week instead of meat
- ◆ Have peanut butter on toast for breakfast

Foods High in Fat and Sugar

Foods that are high in fat and sugar contain a lot of energy (calories). They are often social foods which we often enjoy in social situations with friends and family, including takeaways / meals out / parties e.g. birthday cake!

High fat foods such as biscuits, cakes and pastry also contain saturated fats and it is best to reduce your intake of these foods if you are trying to prevent your weight increasing or if you are trying to lose weight.

Sugary foods especially sweets and sugary drinks contain lots of calories without the benefits of any other nutrients such as vitamins or minerals. Having lots of these in between meals can lead to tooth decay.

Foods high in fat/sugar:

- ◆ Crisps
- ◆ Chocolate
- ◆ Biscuits
- ◆ Cakes
- ◆ Takeaways
- ◆ Full fat milk
- ◆ Ice cream
- ◆ Cream
- ◆ Cheese
- ◆ Sausages
- ◆ Pastry
- ◆ Full sugar drinks e.g. cola, energy drinks
- ◆ Sweets
- ◆ Nuts

Ways to reduce your fat & sugar intake:

- ◆ Grill, bake or poach foods instead of frying
- ◆ Reduce the amount of oil used in cooking, if you must use it try a spray oil
- ◆ Remove visible fat and skin off meats before cooking
- ◆ Use reduced fat cheese and grate it rather than slicing it
- ◆ Use reduced fat margarines instead of butter e.g. Flora Light, Bertolli Light
- ◆ Save foods such as crisps and chocolates for treats instead of having them every day
- ◆ Try diet or sugar free drinks instead of full sugar
- ◆ Try to avoid / reduce sugar that you add to hot drinks
- ◆ If you are hungry snack on fruit or vegetables (try cherry tomatoes, sticks of raw carrots, pepper and cucumber), low energy cereal bars, low fat yogurt, baked / air popped crisp, plain or salted popcorn

Should I eat more of these foods if I want to gain weight?

Foods high in fat and sugar have a lot of calories which can help with weight gain and can still be eaten, but consider choosing healthier high calorie foods more often:

- ♦ **Nut butters** – try peanut or cashew nut butter on toast or apple slices dipped in nut butter
- ♦ **Nuts** – all varieties contain the ‘healthier’ fats and are good for calories
 - try flavoured options if you don’t like plain nuts
- ♦ **Olives** – great as a snack or added into salads, pasta dishes and pizza toppings
- ♦ Add some **mixed seeds** (e.g. pumpkin, sunflower, flax) to salads, soups cereals or just have as a snack with dried fruit + nuts
- ♦ **Hummus** – with toast, pitta bread, crisps or vegetables such as pepper and carrots
- ♦ **Avocados** make a great addition to sandwiches and salads
- ♦ Add an **olive oil** based margarine to potatoes, vegetables and sandwiches. It contains the same amount of calories as butter but has more of the ‘healthier’ fats
- ♦ Make your own **trail mix**:
 - popcorn (salted, sweet or both)
 - nuts
 - small chocolate such as Smarties or M+Ms
 - dried fruit
 - mixed seeds (e.g. pumpkin, linseeds, sunflower seeds)
 - mix all the ingredients together in a bowl. Take a portion out with you to college or work to snack on during the day

To try to avoid sugary drinks and sweets if you want to gain weight. These provide ‘empty calories’ - in other words they do not provide any nutrients for a nutritious

Understanding Food Labels

Reading food labels can be confusing. To identify if a food you are eating is high or low fat or sugar, you need to look at the nutritional information ‘per 100g’.

Use the table below for guidance

Per 100g	Low – healthy choice	Medium – ok most of the time	High – just occasionally
Fat	3g or less	3.1-0g	More than 20g
Sugar	5g or less	5.1-15g	More than 15g

Remember, when deciding how much Creon you need, you must look at the fat ‘per portion’. If you need insulin and carbohydrate count, you need to look at ‘total carbohydrates per portion’.

What about salt?

You may read in magazines or newspapers that we need to reduce our salt intake for health reasons. Remember, this isn’t applicable to CF as you lose more salt when you sweat and this needs to be replaced, either with salt tablets or adding salt to your food.

If you have any concerns please discuss this with your dietitian.

Don't Forget Fluids!

Most people need 6-8 cups of fluid per day to stay hydrated. Drinking plenty of fluids can also make it easier for you to clear sputum and keep your gut moving. Avoid full sugar drinks as they do not provide any nutrition and contain large amounts of sugar

Try:

- ◆ Water – still or sparkling
- ◆ Add flavour to water by adding fruit such as oranges, lemons, lime or even add a few sprigs of mint
- ◆ Sugar free squash
- ◆ Diet fizzy drinks
- ◆ Milk
- ◆ Tea and coffee

Alcohol

- ◆ Alcohol is very high in energy
- ◆ The Department of Health's Low Risk Drinking Guidelines, recommend no more than 14 units per week (with some days not drinking anything at all)
- ◆ If you have diabetes, please ensure to consult you diabetes team for information on blood glucose management and alcohol

What if I am unwell and lose my appetite?

If you become unwell and lose your appetite it is essential you start to eat more high calorie foods and snacks until your appetite is back to normal. This will help minimise any unintentional weight loss.

- ◆ Have small frequent meals and snacks rather than 3 large meals a day. Large meals can be off putting when you are not feeling very well.
- ◆ Choose foods that you find easier to eat
- ◆ Have nourishing drinks such as milk, milkshakes and nutritional supplements
- ◆ Have lots of ice cream, custard or cream with fruit and puddings
- ◆ Add butter or margarine to potatoes and vegetables
- ◆ Use full fat milk for drinks and cereals

Once you are feeling better and if your weight is still in the healthy range you can start to make those healthier choices again.

Still have questions? Contact us:

If you have any questions or concerns regarding this information, please contact one of our CF Dietitians: on 0121 424 1796 (direct line with answer phone) or mobile 07794 375776 / 07867 143 787

Or email: cf_dietitians.tr@nhs.net

Information for Patients

Our commitment to confidentiality

We keep personal and clinical information about you to ensure you receive appropriate care and treatment. Everyone working in the NHS has a legal duty to keep information about you confidential.

We will share information with other parts of the NHS to support your healthcare needs, and we will inform your GP of your progress unless you ask us not to. If we need to share information that identifies you with other organisations we will ask for your consent. You can help us by pointing out any information in your records which is wrong or needs updating.

Additional Sources of Information:

Go online and view NHS Choices website for more information about a wide range of health topics <http://www.nhs.uk/Pages/HomePage.aspx>, www.cysticfibrosis.org.uk, www.heartlandscf.org

You may want to visit one of our Health Information Centres located in:

- Main Entrance at Birmingham Heartlands Hospital Tel: 0121 424 2280
- Treatment Centre at Good Hope Hospital Tel: 0121 424 9946

Clinic Entrance Solihull Hospital Tel: 0121 424 5616

or contact us by email: healthinfo.centre@heartofengland.nhs.uk.

Dear Patient

We welcome your views on what you thought of this patient information leaflet, also any suggestions on how you feel we can improve through our feedback link below:

Patient Information Feedback email: patientinformationleafletfeedback@heartofengland.nhs.uk

If you wish to make any other comments this can be done through the links listed below:

Patient Opinion: www.patientopinion.org.uk

I want great care: www.iwantgreatcare.org (Here you can leave feedback about your doctor)

Be helpful and respectful: think about what people might want to know about our patient information and this hospital and how your experiences might benefit others. Remember your words must be polite and respectful, and you cannot name individuals on the sites.

If you have any questions you may want to ask about your condition or your treatment or if there is anything you do not understand and you wish to know more about please write them down and your doctor will be more than happy to try and answer them for you.



