

## Diet following Graft versus Host Disease of the Digestive Tract (gut GVHD)

Graft versus host disease of the digestive tract or “gut GVHD” sometimes occurs after an allogeneic or donor stem cell transplant. Gut GVHD can affect any part of your digestive tract. It can cause cramps, stomach pain and diarrhoea. It may mean that you have been on fluids, minimal food or TPN (total parenteral nutrition) for a length of time. This sheet gives you some ideas about getting back to eating.

### Starting to eat again

As your gut GVHD begins to resolve, it is important to start introducing fluids and food slowly. Follow a **low fibre, high protein, high energy diet**. This diet aims to reduce digestive tract symptoms, prevent weight loss, and assist in recovery.

- Start with trying high protein, high energy liquids every 2-3 hours.
- Once your treating team tell you that it is ok to introduce solid foods, begin with foods **that are low in fibre**. Start with small amounts every few hours.
- As digestive tract symptoms improve, slowly introduce foods from your normal diet.

Every person is different in what they will tolerate and how soon they will get back to their usual foods.

### Increasing protein & energy

Foods high in protein and energy will assist in preventing weight loss. Often small frequent meals and snacks are easier to manage than large meals.

Have high protein, high energy nourishing fluids:

- Smoothies and milkshakes
- Ready to drink milk drinks e.g. *Up & Go Energize™*, *Breaka™*
- Enriched milk - add 1Tbsp skim milk powder to 250mL full cream milk and use this anywhere you would use regular milk
- *Milo™*, *Ovaltine™* or *Nesquik™* or flavoured syrups added to full cream or enriched milk
- Vegetarian/vegan alternatives include brown rice protein powder or pea protein powder
- Commercial supplement drinks e.g. *Sustagen™*, *Ensure™*, *Resource™*. Speak to your Dietitian if you would like more information on these.

Have a nutritious high protein, high energy snack between meals:

- Full fat yoghurts - try higher protein options e.g. *YoPro™* or *Chobani™*
- Custards and other dairy desserts e.g. *Fruche™*, crème brulee, mousse, rice pudding, *Le rice™*
- Ice cream - try higher protein options e.g. *FroPro™* or *Halo™*
- Eggs cooked to your liking - add cheese, full cream milk and bacon/ham
- Cakes, pikelets, crumpets, muffins and biscuits - add smooth peanut butter, avocado, hummus, tahini, cream cheese or *Nutella™*
- Homemade or commercial dips made with cream cheese or sour cream
- Cheese and biscuits
- Sandwich on white bread with extra butter/margarine - choose fillings such as tuna and mayonnaise or chicken/ meat and cheese

### Reducing dietary fibre

In the weeks following gut GVHD, follow a low fibre diet until your gut fully recovers. Fibre is the part of the plant that humans cannot digest. It passes through the bowels mostly unchanged so can make your symptoms worse. It is ok to choose some fibre containing foods in smaller amounts than you would usually eat. The table below shows which foods you should limit until your gut has recovered.

### Guide to limiting high fibre foods

FOOD GROUP	INCLUDE	LIMIT
<b>Bread, Cereals, Rice, Pasta, Noodles</b>	<ul style="list-style-type: none"><li>• White bread, crumpets, scones, English muffins</li><li>• Refined breakfast cereals e.g. <i>Rice Bubbles™</i>, <i>Cornflakes™</i>, <i>Special K™</i></li><li>• White rice, pasta, sago, tapioca, semolina</li><li>• White flour, cornflour</li><li>• Plain sweet and savoury biscuits or cakes</li></ul>	<ul style="list-style-type: none"><li>• Wholemeal and wholegrain bread, fruit bread, rye bread</li><li>• Wholegrain breakfast cereals or any with dried fruit, nuts or coconut e.g. <i>Muesli</i>, <i>All Bran™</i>, <i>Weetbix™</i></li><li>• Rolled oats, raw oats, oat bran, muesli bars</li><li>• Brown rice, pasta, corn</li><li>• Wholemeal flour, wheatgerm</li><li>• Sweet and savoury biscuits or cakes made with wholemeal flour, nuts, seeds, dried fruit or coconut</li></ul>

FOOD GROUP	INCLUDE	LIMIT
<b>Vegetables</b>	<p><b>Ensure vegetables are <u>peeled</u> and <u>well-cooked</u> where able:</b></p> <ul style="list-style-type: none"> <li>• Potato, sweet potato, pumpkin, carrot, zucchini</li> <li>• Cauliflower and broccoli tips</li> <li>• Asparagus tips, mushrooms</li> </ul> <p><b>Suitable salad vegetables are:</b></p> <ul style="list-style-type: none"> <li>• Tomato and cucumber with skins and seeds removed</li> <li>• Shredded lettuce</li> <li>• Spring onion, onion, capsicum, garlic</li> <li>• Well strained vegetable juice</li> <li>• Tomato puree or paste</li> </ul>	<ul style="list-style-type: none"> <li>• All raw vegetables</li> <li>• Avoid all other vegetables not listed in foods to include</li> </ul>
<b>Fruit</b>	<ul style="list-style-type: none"> <li>• Pawpaw and melons (no seeds)</li> <li>• Banana</li> <li>• Seedless grapes</li> <li>• Peeled peaches and nectarines</li> <li>• Well-cooked fruit no skin/pips</li> <li>• Canned fruits except pineapple</li> <li>• Fruit juice – no pulp</li> </ul>	<ul style="list-style-type: none"> <li>• Fruit with skin, pips or of a very “fibrous” texture - e.g. apples, pears, pineapple</li> <li>• Dried fruit and coconut</li> <li>• All other fruit not listed in foods to include</li> </ul>
<b>Dairy foods</b>	<ul style="list-style-type: none"> <li>• All varieties of milk</li> <li>• Plain yoghurt or custard</li> <li>• Plain cheese</li> <li>• Plain or flavoured ice cream</li> </ul>	<ul style="list-style-type: none"> <li>• Ice cream or gelato containing dried fruit, nuts or coconut</li> <li>• Products containing “chunky fruit” pieces</li> </ul>
<b>Meat, fish, poultry, eggs, nuts, legumes</b>	<ul style="list-style-type: none"> <li>• Any tender, soft meat, chicken (no skin) and fish</li> <li>• Eggs, tofu</li> </ul>	<ul style="list-style-type: none"> <li>• Legumes e.g. baked beans, lentils, soy beans, kidney beans</li> <li>• Nuts and seeds</li> </ul>
<b>Miscellaneous</b>	<ul style="list-style-type: none"> <li>• All fats including butter, margarine, mayonnaise, oils</li> <li>• Sugar, honey, syrups</li> <li>• Boiled lollies, jubes, chocolate with no fruit, nuts or coconut</li> <li>• Spreads without seeds</li> <li>• Soup made from allowed ingredients, <i>Bonox</i><sup>TM</sup></li> <li>• Desserts made from allowed foods (jelly, junket)</li> <li>• Gravy, salt, pepper, dried herbs and spices</li> </ul>	<ul style="list-style-type: none"> <li>• Popcorn</li> <li>• Crunchy peanut butter</li> <li>• Chocolate with nuts and fruit</li> <li>• Chutney and pickles</li> </ul>

## Other things to consider:

### Lactose

You may find lactose (found in milk and dairy foods) makes your diarrhoea worse. You may need to temporarily reduce lactose-containing foods and drinks. To reduce the lactose in your diet try:

- Lactose free milk such *Zymil™*, *Liddell's™* or soy milk.
- Yoghurt (e.g. *Vaalia™*, *Jalna™*), hard cheese and cream are usually well tolerated.
- Supplements such as *Resource Fruit Beverage™*, *Resource Plus™*, *Ensure Juice Plus™*, and *Ensure Plus™* are all low in lactose.

You can reintroduce lactose when your digestive tract symptoms have settled. Ask your Dietitian for advice.

### Fat

If you find that eating high fat foods makes your diarrhoea worse, you may want to limit high fat foods. Ask your Dietitian for advice.

### Vitamins/Minerals

If you are on steroid treatment, you may have an increased need for calcium and vitamin D. Check with your Doctor to see if you need any vitamin or mineral supplements.

### Final tips...

- Follow a low fibre diet until your symptoms have improved. Slowly reintroduce higher fibre foods.
- Make sure you are including foods and fluids high in protein and energy to help your recovery.
- Check your weight weekly. Contact your Dietitian if you are unable to regain lost weight or if you keep losing weight.
- If you are neutropenic or less than 30 days after your bone marrow transplant, it is important to still follow food safety guidelines and avoid high risk foods. Ask your Dietitian for a copy of these guidelines.