

Diet following Graft versus Host Disease of the Digestive Tract (GVHD-DT)

Graft versus host disease of the digestive tract (GVHD-DT) sometimes occurs after an allogeneic or donor stem cell transplant. GVHD-DT 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.

Starting to eat again

Once your GVHD-DT 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 energy, high protein liquids every 2-3 hours.
- Once advised by your treating team that it is appropriate 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 as able.

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

Reducing dietary fibre

In the weeks following GVHD-DT, a low fibre diet is recommended until your gut fully recovers. Fibre is the part of the plant that humans cannot digest. It passes through the bowels largely unchanged, giving bulk to the stool. It is acceptable to choose some fibre containing foods in smaller amounts than you would usually eat. It is important to:

- Have small, frequent meals
- Limit high fibre foods (see table below)

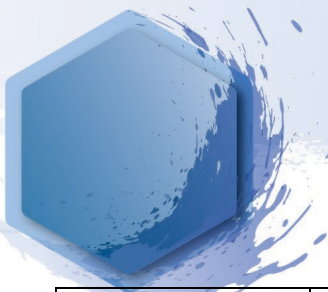
Increasing protein & energy

High protein and energy foods will assist in preventing weight loss. Often small frequent meals and snacks are easier to manage than large meals. Make each meal as nutritious as possible. Ensure all meals are high in protein and energy.

- Have a nutritious snack between meals
- Have high protein, high energy nourishing fluids

Guide to limiting high fibre foods

FOOD GROUP	INCLUDE	LIMIT
Bread, Cereals, Rice, Pasta, Noodles	<ul style="list-style-type: none"> White bread, crumpets, scones, English muffins Refined breakfast cereals e.g. <i>Rice Bubbles™</i>, <i>Cornflakes™</i>, <i>Special K™</i> White rice, pasta, sago, tapioca, semolina White flour, cornflour Plain sweet and savoury biscuits or cakes 	<ul style="list-style-type: none"> Wholemeal and wholegrain bread, crumpets, fruit bread, rye bread Wholegrain breakfast cereals or any with dried fruit, nuts or coconut e.g. <i>Muesli</i>, <i>All Bran™</i>, <i>Weetbix™</i> Rolled oats, raw oats, oat bran, muesli bars Brown rice, pasta, corn Wholemeal flour, wheatgerm Sweet and savoury biscuits or cakes made with wholemeal flour, nuts, dried fruit or coconut
Vegetables	<p>Ensure vegetables are <u>peeled</u> and <u>well-cooked</u> where able:</p> <ul style="list-style-type: none"> Potato, sweet potato, pumpkin, carrot, zucchini Cauliflower and broccoli tips Asparagus tips, mushrooms <p>Suitable salad vegetables are:</p> <ul style="list-style-type: none"> Tomato and cucumber with skins and seeds removed Shredded lettuce Spring onion, onion, capsicum Well strained vegetable juice Tomato puree or paste 	<ul style="list-style-type: none"> All raw vegetables Avoid all other vegetables not listed in foods to include
Fruit	<ul style="list-style-type: none"> Pawpaw and melons (no seeds) Banana Seedless grapes Peeled peaches and nectarines Well-cooked fruit no skin/pips Canned fruits except pineapple Fruit juice – no pulp 	<ul style="list-style-type: none"> Fruit with skin, pips or of a very “fibrous” texture - e.g. apples, pears, pineapple Canned pineapple Dried fruit All other fruit not listed in foods to include



FOOD GROUP	INCLUDE	LIMIT
Dairy foods	<ul style="list-style-type: none"> All varieties of milk Plain yoghurt or custard Plain cheese Plain or flavoured ice cream 	<ul style="list-style-type: none"> Ice cream or gelato containing dried fruit, nuts or coconut Products containing “chunky fruit” pieces
Meat, fish, poultry, eggs, nuts, legumes	<ul style="list-style-type: none"> Any tender, soft meat, chicken (no skin) and fish Tofu Eggs 	<ul style="list-style-type: none"> Legumes e.g. baked beans, lentils, soy beans, kidney beans Nuts and seeds
Miscellaneous	<ul style="list-style-type: none"> All fats including butter, margarine, mayonnaise, oils Sugar, honey, syrups Boiled lollies, jubes, chocolate with no fruit, nuts or coconut Spreads without seeds or skin Soup made from allowed ingredients, <i>Bonox</i>TM Desserts made from allowed foods (jelly, junket) Gravy, salt, pepper, dried herbs and spices 	<ul style="list-style-type: none"> Popcorn Crunchy peanut butter Coconut Chocolate with nuts and fruit Chutney and pickles

Low fibre high protein foods include:

- Meat, fish, chicken, eggs
- Dairy foods e.g. milk, cheese, yoghurt
- Dairy alternatives including soy milk, almond milk and low-lactose products
- Meat alternatives e.g. tofu, vegetarian sausages
- Nutritional supplements
e.g. Sustagen, Resource Plus, Ensure Plus

Low fibre high energy foods include:

- Full cream dairy products
- Margarine, butter, oil
- Cream, sour cream, mayonnaise and oil/cream-based salad dressings
- Honey, sugar, chocolates, sweets, cakes, ice-cream (without nuts or dried fruit)
- Nutritional supplements
e.g. Sustagen, Resource Plus, Ensure Plus



Low fibre high protein high energy snacks

- 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 high 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
- Full or half sandwich on white bread made with extra butter/margarine – choose fillings such as tuna and mayonnaise or chicken and cheese

High protein high energy fluids


Do not fill up on low energy fluids such as tea, coffee, water, broths or diet soft drinks and cordials. Drink plenty of high protein high energy fluids throughout the day. Use full cream milk when possible.

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

Other things to consider:

Lactose

Depending on the severity of GVHD-DT and which part of the digestive tract is affected, you may be required to temporarily reduce lactose-containing foods and drinks if you feel that it makes your diarrhoea worse. To reduce the lactose in your diet try:

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- Reduced lactose 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 Juce Plus™*, and *Ensure Plus™* are all low lactose products.
 - Ask your Dietitian about reintroducing small amounts of milk and dairy once your digestive tract symptoms have settled.

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 require any supplements.

Final tips...

- Monitor your weight weekly and contact your Dietitian if you are unable to regain lost weight or if you keep losing weight.
- If you are neutropenic or less than D+30 following on from 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.