

Nutrition and IBD

CAROLINE SALISBURY

ACCREDITED PRACTISING DIETITIAN BRADDON



IBD (Crohn's and ulcerative Colitis) can have varying impacts on bowel habits, general health, appetite and risk factors such as weight- under and overweight, bone density, iron status and increase symptoms such as fatigue, and low mood.

Patients with IBD are at increased risk of malnutrition, and can have increased nutrient and energy requirements, and at times an inadequate or altered intake.

ESPEN - Evidence Based Guidelines confirm

NO evidence that diet can cause or cure IBD.

BUT IBD patients are at significant risk of malnutrition and nutrient deficiencies.

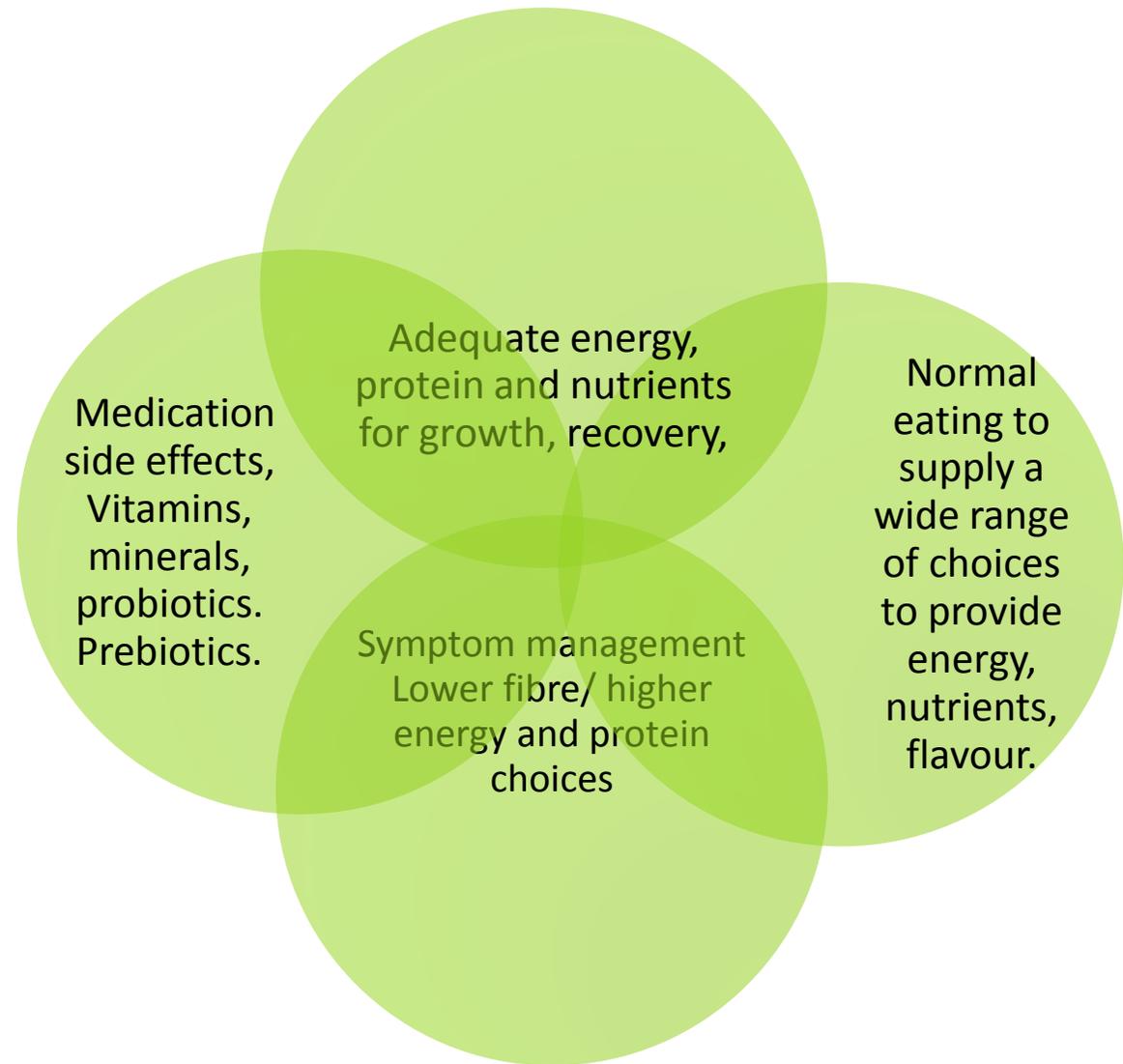
ESPEN – Latest Nutrition Guidelines for IBD.

The latest nutrition guidelines for inflammatory bowel disease from ESPEN – European Society of Parenteral and Enteral Nutrition

- - http://www.espen.org/files/ESPEN-guideline_Clinical-nutrition-in-inflammatory-bowel-disease.pdf

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Diet and nutrition are important for all of us, especially if you have a chronic condition that affects your appetite / nutrient needs.



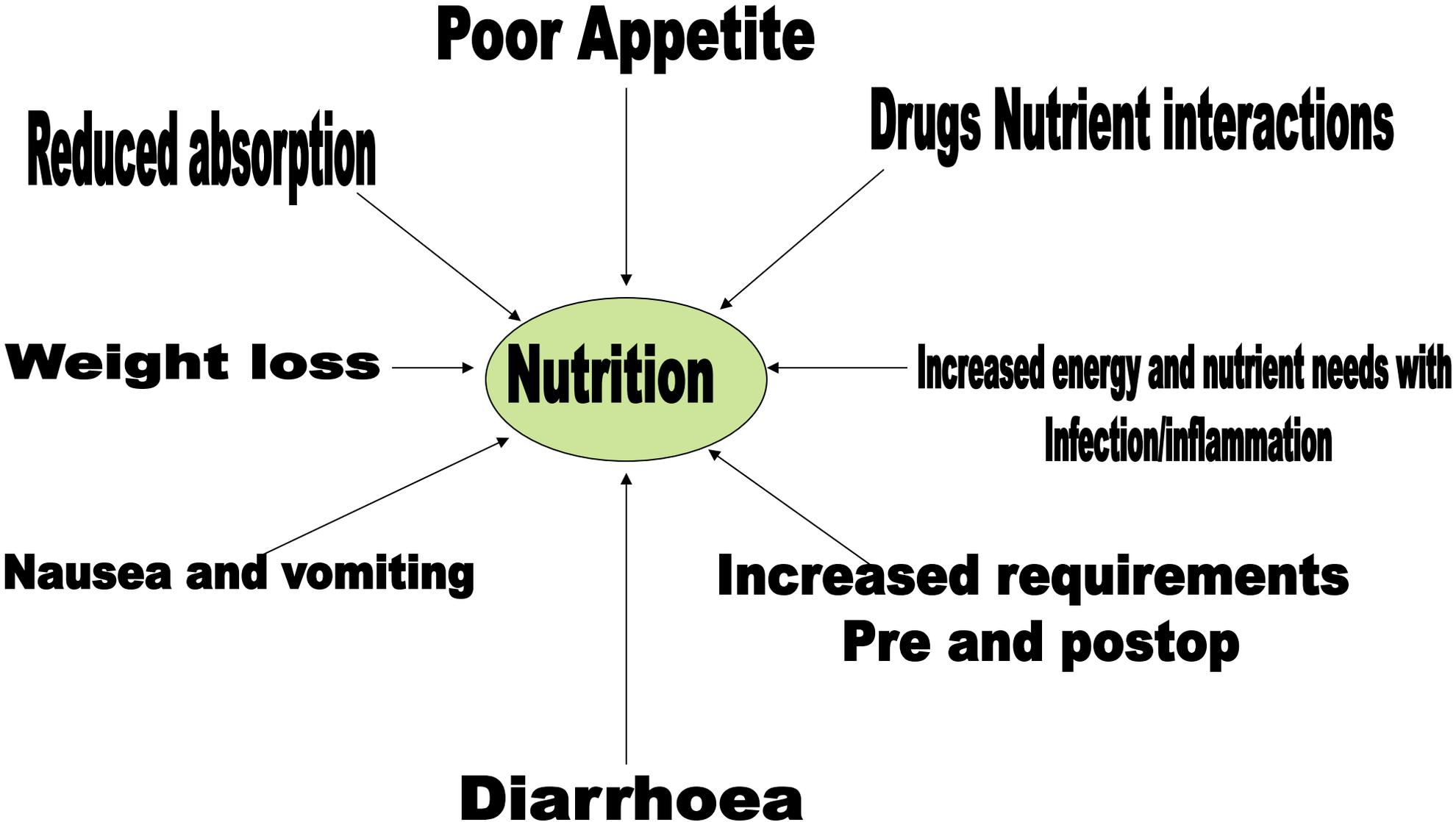
If you're thinking about your nutrition – you're doing the right thing, but seek the right advice – ask an APD.

Studies suggest that up to 90 % of Crohn's patients and 70% of UC patients have altered their diet since diagnosis.

>75% of CD patients felt these changes improved symptom control, but only 15% had formal nutrition assessment. (Roy et al 2009.)

BUT malnutrition is also common in IBD, as is restricted intake from poor appetite, lower intakes of fruit and vegetables and fibre, and higher intakes of fats and sugars. (Yamamoto 2010.)

Inflammatory Bowel Disease and diet



Could you be at risk of nutrient deficiency or malnutrition ? How would you know ?

Dietitians use a range of tool to assess your nutritional status including physical assessment, Diet History, Clinical History, and Medication.

- Has your appetite and intake decreased over the past 3 months. ?
- Have you lost weight unintentionally during the past 3 months ?

Adult > 2 kg

- Is your BMI within the healthy range ?
- For children – monitoring growth is a key indicator.
- Have you chosen or had to remove a dietary component? Fibre rich foods or lactose ?

Tim – CD patient
“With a flare it’s just a matter of getting the food and fluids in. Sometimes the nausea and bowel activity and fatigue leave me too exhausted to eat anything but an Ensure pudding” Tim had lost 8 kg in 6 months – now gradually regaining weight.

DURING A FLARE YOUR FOOD CHOICES MAY CHANGE

Tim’s day

- breakfast – nutrigrain or special K + soy milk and bowl of yoghurt.

m/tea - muffin or banana bread or bacon and cheese bagel.

Lunch - sandwich - meat roll on white bread

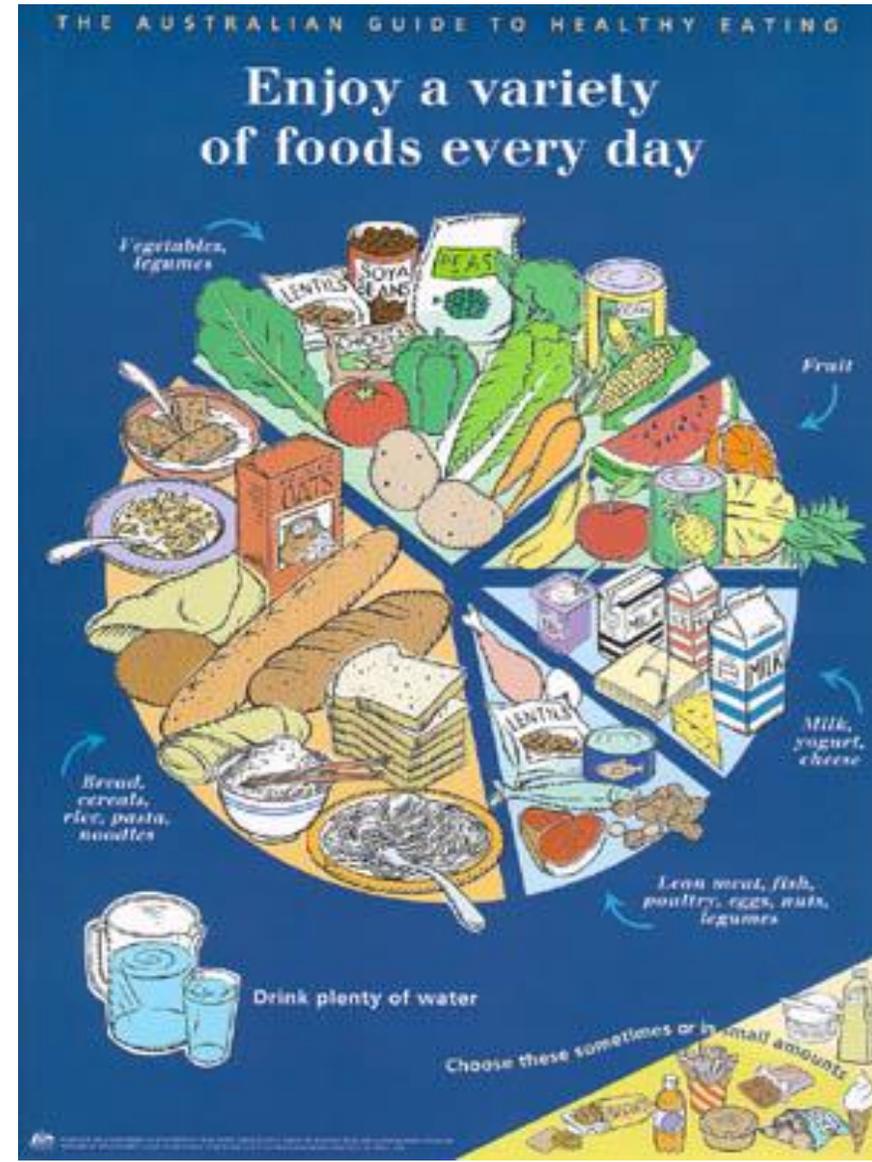
a/tea - biscuits – powerade x 600 mls + rice crackers or cheese and crackers

dinner - lasagne – premade or pasta with bottled sauce

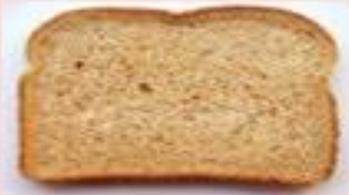
- on a tired night he only manages an ensure pudding for dinner.

- dessert - stewed rhubarb and ice cream.

When your symptoms are well controlled your diet should include as wide a range of foods and fibres as you can. Think Mediterranean diet with grains, legumes, lean protein, lots of vegies and salad and fruit as a snack + oils and vinegar.
BUT if you are having a flare or have increased requirements your intake may need modifying and supplements may be required..



Let's start with Breads and Cereals x 5- 6 serves per day.

Food groups	Serving size example		
Breads, cereals, rice, pasta, noodles	 <p data-bbox="631 596 843 725">1 cup of breakfast cereals</p>	 <p data-bbox="1026 611 1462 704">1 cup of cooked rice, pasta, noodles</p>	 <p data-bbox="1582 625 1786 704">1 slice of bread</p>

Breads and Cereals are a key source of energy, carbohydrates, soluble and insoluble fibre, zinc, B vitamins, iron and folate, and iodine in fortified cereals.

Normal diet = Look for choices that are higher in fibre and grains for increased satiety.

Choose cereals fortified with iron, folate and B vitamins if pregnant, or if you require increased iron.

Bread and cereals – Top Tips

During a flare - If you are symptomatic you may choose lower fibre choices.

White rice, white or white hi fibre bread, quick oats. Choose cereal with added iron and folate such as cornflakes. Quinoa, polenta and wheat pasta are all relatively low in fibre, but offer nutritious choices.

Fruit – 2 x a day

Fruit				
	 <p data-bbox="631 554 1121 685">1 medium (150g) apple, orange, pear, banana</p>	 <p data-bbox="1166 554 1352 592">Grapes</p>	 <p data-bbox="1467 554 1646 685">2 small Stone fruits</p>	 <p data-bbox="1803 554 2002 592">Tin fruit</p>

This group provides some of the best sources of Vitamin C.

1 orange or handful of berries provides a whole day's Vitamin C, and are a moderate source of folate. Add a squeeze of lemon juice to a green vege or salad to increase iron absorption.

The fruit group also provides fibre in whole, tinned or dried form and slow release carbohydrate. Mix it up for fibres and flavours.

Fruit – Top Tips

If you're unwell – You may choose lower fibre choices

Choose fruit juice, canned fruits without skins, and stewed fruit, bananas are a good filler.

Go easy with the seeded fruits such as kiwifruit and raspberries.

Avocado is a fruit so use this in salads. Lower FODMAP choices may help if you have loose bowels – less of the apples and pears and swap to bananas.

Vegies and salad – Got to love those 5 serves day.



This group of coloured foods boosts your intake of water soluble Vitamin A in the orange and yellow choices, Vitamin C in the salad and potatoes, folate in the dark green choices.

Fibre helps with keeping you regular and fills you up.

Potato and sweet potato are excellent sources of carbohydrate.

Vegies and salad – Top Tips

During a flare –choose peeled potato and sweet potato. Go easy with corn cobs, peas and legumes.

Choose lower fibre green vegies- Lettuce, baby spinach, cucumber, without the seeds, zucchini. Remember the herbs for flavour and nutrients – chopped parsley, coriander, spice rubs, and marinades

Salad is still a choice as chopped tomatoes without the seeds or tomato passata to keep up Vitamin C and flavour.

Protein Power – 2-3 serves a day

Food groups	Serving size example			
Meat, fish, poultry, egg, nuts, legumes	 100g cooked meat, poultry (size of your palm)	 120g fish (size of your hand)	 2 small eggs	 1/3 cup almond, peanut 120g

This group is important for repair and recovery of damaged tissues, can be rich in iron from red meat, liver, omega 3 from fish for their mild anti-inflammatory effect and nuts for beneficial fats.

Include a range of sources across the day, tinned fish at lunch, eggs make a nutritious, easy dinner. And use nuts as a snack and as part of a salad.

Protein for health – Top Tips.

During a flare protein is important to maintain energy intake, provides zinc and iron. Supplements may become important – Ensure, Fortisip, sustagen.

Choose easy options such as premade lean meat rissoles, frozen salmon, and eggs.

Strongly flavoured and higher fat choices may be less attractive with nausea. Perhaps limit legumes and swap in tofu and tempeh.

Use frozen choices and prepared meals as easy options.

Build your bones – 2-3 serves a day

Food groups	Serving size example		
Milk, yoghurt, cheese	 2 slices of cheese (40g)	 250ml of milk	 1 tub (200g) yoghurt

Include 2 -3 serves of this group a day for calcium, protein, B vitamins and protein.

Include yoghurt for probiotics and as a nutritious snack.

Soy milk is the most nutritious non dairy alternative, ensure it has added calcium and B12. Add skim milk powder to milk for a higher protein and energy supplement.

Dairy – Hot Tips

If you're unwell dairy choices such as cheese, milk and custard offer high protein options.

Add a sprinkle of cheese to salad and dinners for extra energy.

Use fortified choices such as Sustagen or for Soy based Ensure or Fortisip for a nutritious supplement.

Choose lactose free options if you have been Dx with lactose intolerance.

Any firm or hard cheese is low or lactose free.

Use lactose free ice cream – peters and liddell's lactose free yoghurt.

Vaalia lactose free yoghurt contains inulin – which is a long chain FODMAP so trial this after the initial period of exclusion.

Essential fats and oils



A heart healthy diet contains at least 4-6 tspns of added oils and margarine, plus avocados and nuts each day.

Essential fatty acids include Omega 3 from nuts, Omega 6 from sunflower and safflower oil.

During a flare higher fat foods may increase bowel activity, but provide essential energy.

Essential fats- Top Tips

If you're consuming High fat foods such as crumbed or pastry based meals observe if they increase nausea and affect bowel activity. Trial small amounts.

If you're unwell continue to consume added fats in cooking or on bread for extra energy.

Extras

Extra foods



1 can (375ml)
soft drink



12 hot chips



1 ½ scoops ice
cream



400ml regular
beer

Recommended levels for the “Extras” are one a day.

Some of the easy to eat options such as potato crisps, and ice cream may be useful for extra energy if your appetite is low.

Avoid relying on these foods as they are nutrient poor, and high energy.

Start with 6 + of fluid each day

Water is preferred but other fluids can be substituted - tea, decaf coffee, cordial, diluted juice and milks

Limit caffeine rich drinks to 4/day if sleeping, agitation, or bladder irritation is an issue.

Try decaf and herbal options for a change

Keep fluid available and track intake.

Dehydration is a risk with FLARES or increased output with J- pouches, ileostomy.

Rehydration solutions, sports drinks ?



Nutritious snacks for people living with IBD ?

How is your appetite ? Snacker or grazer ?

Tasty food is helpful if you have poor appetite.

Nutritious drinks such as smoothies, juice, crackers with hard cheese or hoummos.

Tuna or salmon spread on crackers.

Make some banana bread, crumpets and muffins.

Tinned or fresh fruit and custard or yoghurt.

Supplements drinks and puddings.

If you're appetite is strong – soups, miso soups, canned fruit, frozen banana ice cream.

Sarcopenia – “osteoporosis of the muscles”.

- Sarcopenia is a change in body composition common in the elderly but also common in patients with chronic conditions such as renal disease and inflammatory conditions – increased . (Ryan 2017)
- Loss of muscle mass and function, and can occur at a “healthy weight”
- Prevention is a mix of adequate nutrition, protein, combined with strength and cardiovascular exercise.
- work with physiotherapist, exercise physiologist + dietitian.

If you fail these three tests there is a risk you could have sarcopenia



Can you walk faster than **2.88 kilometres an hour**?



If you're a woman, is the strength of your hand grip **more than 20 kilograms**?

If you're a man, is the strength of your hand grip **more than 30 kilograms**?

This can be measured using a special piece of equipment called a dynamometer, available at your doctor.



Can you stand up and sit down on a chair **five times in 15 seconds**?

Supplements – vitamins and minerals.

- Vitamins and minerals are compounds that our bodies need in very small amounts.
- In IBD patients are at risk of decreased intake or increased vitamin and minerals and may be advised to add a particular supplement such as iron or calcium, or B12
- Taking vitamin mineral supplements “just in case” can be unnecessary and in large amounts can be detrimental.
- Check out how much of each essential Vitamin and mineral you require nrv.gov.au
- Food sources of nutrients will generally sufficient if you can eat widely enough.
- If you have particular requirements such as calcium or iron – check for food sources first, check the NRV, and check the elemental content in the supplement.
- Complementary medicines can also react with medications, so check with pharmacist/ gastro.
- Nutritionally complete supplements drinks contain protein + fats and nutrients – sustagen hospital or fortisip – if you’ve been an inpatient at TCH you may be able to get these on the HENS scheme

IBD vs IBS – it's a balancing act.

IBD patients are 3 x more likely to have IBS – variable bowels, bloating, constipation.

Check with your specialist re your symptoms.

Patients with Irritable Bowel symptoms may benefit from a short trial - 4 weeks of excluding foods high in FODMAPs.

These fermentable foods include apples, garlic, legumes, and lactose.

FODMAPs are beneficial prebiotics or fibres that nourish bowel bacteria but they can change motility in sensitive individuals.

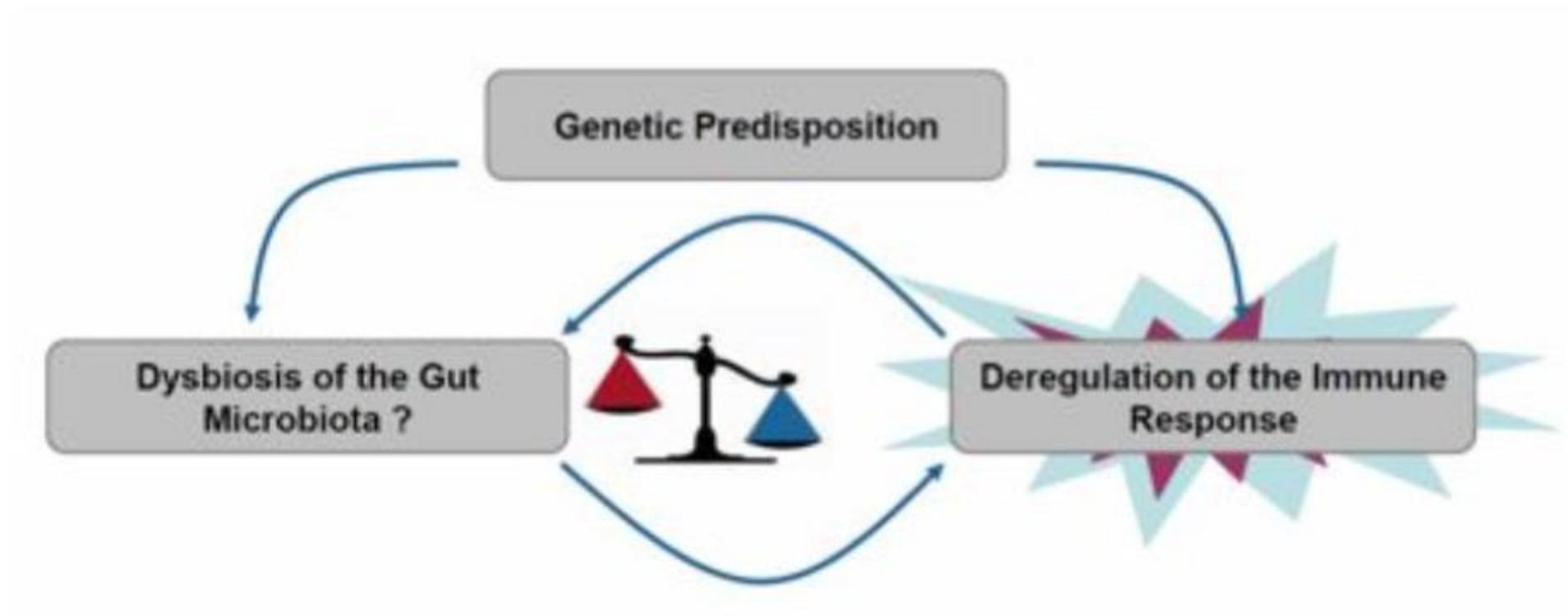
FODMAPs and Fibre

FODMAPs are beneficial to the diversity and number of gut microbiota BUT may need to be reduced during a flare or if they individually affect your gut motility.

The “red” traffic light foods are high in FODMAPs – Fermentable oligosaccharides, monosaccharides and polyols – great prebiotics, but may affect bowel motility in those prone to IBS or during a flare.

VEGETABLES	Overall Rating		FODMAPs present in this serving size							
			Oligos		Fructose	Polyols		Lactose		
			fructans	GOS		sorbitol	mannitol			
Alfalfa (½ cup)	●	Low								
Artichoke, globe (½ small globe)	■	High	■							
Artichoke, hearts, canned in water & vinegar (¼ cup)	●	Moderate			●					
- Artichoke, hearts, canned in water & vinegar (1 Tbsp)	●	Low								
Artichoke, Jerusalem (1 artichoke)	■	High	■		■					
Asparagus (2 spears)	■	High			■					
Bean sprouts (½ cup)	●	Low								
Beans, green (10 beans)	●	Low								
Beetroot (4 slices)	■	High	■	■						
- Beetroot (2 slices)	●	Low								
Bok choy (1 cup)	●	Low								
Broccoli (1 cup)	■	High	■	■			■			

Microbiome - Cause or effect ?



Microbiome - probiotics, prebiotics

- The role of the gut microbiota is a “hot topic” and research is ongoing.
- Probiotics are widely marketed in form of capsules, powder fermented foods and yoghurts.
- Prebiotics are foods containing fibres including oats, legumes, fruits, so a fibre diverse diet with a range of FODMAPs. The gut flora can shift significantly in a short time frame, so excluding FODMAPs or fibre should be short term only.
- Research in probiotics is strain specific and just building in terms of study size.
- ESPEN guideline – Probiotic therapy using VSL3 but not necessarily other probiotics may be helpful in UC in reduction of remission.
- Probiotics should NOT be used to treat active Crohn’s disease. Generally found to be ineffective and can increase risk of bacteraemia - so – ASK your specialist before you add probiotics.

TAKE HOME MESSAGES

Aim for as wide a variety of food choices as you can.

Start with the basics of 3 meals and 2-3 nutritious snacks even if the timing can be a bit varied due to commitments.

Have a back up plan for meals and snacks.

At times you may need to modify your choices to alter fibre content, energy density, iron, calcium and FODMAP content.

Check with IBD team if you are making major changes.

Avoid short term fad diets.

Keep active and get some sunlight each day.

Check in with the IBD team before you start supplements, vitamins and complementary medicines or the FODMAP diet

FODMAP diet is designed to be a 2-4 weeks trial challenges of each subgroup.

Accredited practicing Dietitians are the nutrition experts see daa.asn.au or TCH or health centres.