

# Reduced-Salt Diet

For advanced liver disease

## Rationale

A common complication of advanced liver disease is the build-up of excessive fluid, particularly around the stomach area (known as ascites) and in the feet and legs (oedema). Restricting the amount of salt you eat is an important part of managing this fluid retention.

Salt acts like a sponge to retain fluid in your body. You can reduce the amount of fluid that stays in your body by reducing the amount of salt you eat, as well as increasing your protein intake.

Be aware that the sodium level shown in your blood test results does not reflect the total amount of salt in your body. If you have fluid build-up, then you have too much salt in your body.

There are times you may also be asked to limit the amount of fluid you drink through the day. This includes all beverages and watery foods, such as thin soups, but should not include any high-protein supplement drinks you have been advised to drink, as they make a significant contribution to your protein intake. At least half of your fluid intake should be high in protein (e.g. milk).

To help control fluid retention in liver disease, aim to have no more than 2300 mg of sodium per day (equivalent to one teaspoon or 6 g of table salt). It is important that you do not restrict salt to the point where food is unpalatable. Your focus should be on eating enough, and particularly eating enough protein, to prevent malnutrition or to reduce your level of malnutrition.

The most effective way to achieve this recommendation is to follow a 'reduced-salt' diet. Consulting an accredited practising dietitian with experience in liver disease is also advised.

## What is salt?

The table salt and cooking salt we generally have in our kitchens is made up of sodium chloride. It's the sodium in this that we need to watch out for, as it retains fluid.

Salt is shown as 'sodium' on food labels. One teaspoon of table salt (sodium chloride) weighs 6 g and contains 2300 mg of sodium.

## Salt in common foods

Most Australians eat a lot more salt than we need. Salt is added to foods for flavour and as a preservative. Sodium also occurs naturally in almost all foods and can be present in processed foods through food additives (e.g. sodium bicarbonate in cakes and biscuits).

Processed foods contribute the most salt to Australians' salt consumption and include processed meats, canned vegetables, instant pastas and soups, instant noodles, salty biscuits, pizza and salty snack foods such as potato crisps. Sauces, spreads and condiments can also be surprisingly high in salt.

## What is a reduced-salt diet?

Plenty of salt is found naturally in food or is added to processed foods, so you certainly **don't need to add salt** to meals or while cooking. One of the easiest ways to reduce salt intake is to not add salt.

### DO NOT ADD SALT:

- while preparing or cooking food; or
- at the table before eating.



A fondness for salty foods is something we learn over time. Initially, you may notice that food tastes 'different' after starting a reduced-salt diet. However, your tastebuds will adapt to this healthier diet change.

### Salt is not the only way to add flavour. Instead add:

- Freshly ground black pepper
- Lemon, lime and other citrus fruits
- Vinegar, particularly balsamic vinegar
- Oil or butter
- Fresh herbs
- Chillies
- Ginger, garlic, shallots and spring onions
- Spices such as mustard powder, nutmeg, cinnamon, cardamom, ginger and cumin
- Toasted and ground sesame seeds

### Additional tips

#### 1. Be a salt sleuth

When grocery shopping, look at the sodium content on the food and nutrition information panel. Salt is shown as 'sodium' on food labels. Look for the sodium content per 100 g and compare the sodium content of various brands of a food. Always choose the brand with the lowest sodium content per 100 g of food.

#### 2. Understand food claims

Claim	What does it mean?	Comment
'No Added Salt'	Salt has not been added, but the product may still contain a high level of natural salts	Worth considering – check salt content
'Salt Reduced'	Food contains no more than 75% of the salt content of equivalent products, thus may still be fairly high in salts	Misleading – check salt content
'Low Salt'	Food contains no more than 50% of the salt content of equivalent products	Worth considering

#### 3. Cut back on highly salted foods and condiments

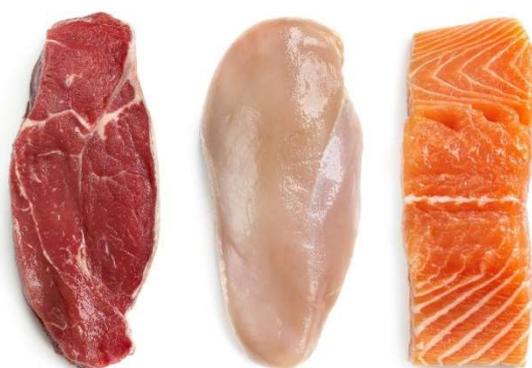
Foods that have been prepared or cooked commercially with salt also need to be avoided. Refer to the following pages for a list of foods to include in your diet and foods to avoid.

#### 4. The use of 'salt substitutes' is not recommended

Salt substitutes usually contain potassium, and their use may lead to very high potassium levels in the blood that can alter your heart rhythm and lead to heart problems.

#### Eat high-protein foods

A combined reduced-salt, high-protein diet is important for people with chronic liver disease. The protein is used to maintain muscles and body tissues and to keep the body working normally. It is important that food is enjoyable and palatable to ensure that you eat enough protein to prevent muscle wasting or malnutrition.



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	Foods to include	Foods to avoid
HIGH-PROTEIN FOODS: Dairy or Soybean <i>Include in each meal/snack</i>	<ul style="list-style-type: none"> <li>• Milk</li> <li>• Yoghurt</li> <li>• Cream, sour cream</li> <li>• Custard, dairy desserts, ice-cream</li> <li>• Ricotta or cottage cheese (see label)</li> <li>• Low-sodium cheddar cheeses, 120 g/day</li> <li>• Other cheeses</li> </ul>	<ul style="list-style-type: none"> <li>• Feta cheese</li> <li>• Haloumi</li> <li>• Commercial cheese dips</li> <li>• Cheese logs</li> <li>• Cheese biscuits or breads</li> <li>• Commercial cheese sauces</li> </ul>



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	Foods to include	Foods to avoid
<p>HIGH-PROTEIN FOODS:</p> <p>Meat, fish, poultry, eggs, tofu, legumes, nuts and seeds</p> <p><i>Include in each meal/snack</i></p>	<ul style="list-style-type: none"> <li>• Meat, poultry, fish, seafood (fresh or frozen)</li> <li>• Eggs</li> <li>• Canned seafood in oil or spring water</li> <li>• Fresh tofu or bean curd</li> <li>• Fresh or dried legumes (lentils, chickpeas, soybeans, kidney beans), no-added-salt baked beans</li> <li>• Unsalted nuts and seeds</li> </ul>	<ul style="list-style-type: none"> <li>• Cured, smoked, canned or salted meat (e.g. corned beef, ham, bacon, sausages, salami, brawn, frankfurts, hot dogs, pâté)</li> <li>• Meat pies, sausage rolls, fish fingers and other salty takeaway foods (e.g. BBQ chicken, Asian meals)</li> <li>• Salted, smoked or pickled fish (e.g. anchovies, smoked oysters, pickled herring)</li> <li>• Canned seafood not in oil or spring water</li> <li>• Canned legumes (e.g. kidney beans, three bean mix, regular baked beans)</li> <li>• All salted nuts and seeds</li> </ul>



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	Foods to include	Foods to avoid
<p>Vegetables</p> <p><i>Enjoy with high-protein foods listed above</i></p>	<ul style="list-style-type: none"> <li>• Fresh and frozen vegetables</li> <li>• 'No-added-salt' canned vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• Pickled or preserved vegetables (e.g. kimchee, gherkins, olives, capers)</li> <li>• Salty canned vegetables</li> <li>• Shop-purchased tomato or vegetable juice</li> </ul>



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	Foods to include	Foods to avoid
<p>Soups and broths</p> <p><i>Avoid if advised by your doctor to limit the amount of fluid you consume, and try casseroles instead</i></p>	<ul style="list-style-type: none"> <li>• Salt-reduced stock or stock powder</li> <li>• Gravy made with salt-reduced stock</li> <li>• Homemade unsalted soups</li> </ul>	<ul style="list-style-type: none"> <li>• All canned or dehydrated packet soups</li> <li>• Restaurant/café/takeaway soups</li> <li>• Stock cubes and powder</li> <li>• Commercial gravy</li> <li>• Dashi, miso and soups made from them</li> </ul>



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	Foods to include	Foods to avoid
<p>Bread, cereal, rice, pasta and noodles</p> <p><i>Enjoy in moderation with high-protein foods listed above</i></p>	<ul style="list-style-type: none"> <li>• Multigrain, wholemeal, rye, white, Lebanese, Turkish and flat bread and bread rolls</li> <li>• English muffins, crumpets, pikelets, waffles and pancakes</li> <li>• Fruit bread and buns</li> <li>• Cakes, sweet biscuits and pastries</li> <li>• Plain savoury biscuits without salty toppings</li> <li>• Breakfast cereals (compare brands for the lowest sodium content)</li> <li>• Rolled oats, porridge</li> <li>• Rice</li> <li>• Fresh and dried pasta or noodles</li> <li>• Unsalted popcorn and pretzels</li> </ul>	<ul style="list-style-type: none"> <li>• Savoury breads, bread or bread rolls with salty ingredients (e.g. bacon, olives, sun-dried tomatoes)</li> <li>• Savoury crackers sprinkled with salt</li> <li>• Packet rice, pasta, instant noodles with flavour packs</li> <li>• Canned spaghetti</li> <li>• Takeaway Asian noodles with salty condiments</li> <li>• Salty snack foods (e.g. pretzels, potato crisps, corn chips, popcorn)</li> </ul>



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	Foods to include	Foods to avoid
<p>Fruit</p> <p><i>Enjoy in moderation with high-protein foods listed above</i></p>	<ul style="list-style-type: none"> <li>• Fresh fruit</li> <li>• Dried fruit</li> <li>• Fresh juices</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>



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	Foods to include	Foods to avoid
<p>Condiments</p> <p><i>Add flavour to your meals and snacks</i></p>	<ul style="list-style-type: none"> <li>• Herbs and spices with no added salt</li> <li>• Vinegar, lemon or lime juice</li> <li>• Mustard, chillies, garlic or ginger</li> <li>• No-added-salt peanut butter for satay sauce</li> <li>• Salt-reduced soy sauce (in moderation)</li> <li>• Oil</li> <li>• No-added-salt butter or margarine</li> </ul>	<ul style="list-style-type: none"> <li>• Salty spice mixtures (e.g. lemon pepper, celery salt, veggie salt)</li> <li>• MSG</li> <li>• Rock salt</li> <li>• Dried packet sauces</li> <li>• Soy, oyster, hoisin, teriyaki, black bean and fish sauces</li> <li>• Miso and dashi</li> <li>• Worcestershire sauce</li> <li>• Gravy</li> <li>• Regular satay sauce</li> </ul>



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	Foods to include	Foods to avoid
Drinks and extras  <i>Enjoy in moderation</i>	<ul style="list-style-type: none"> <li>• Milk or soy milk to provide extra protein</li> <li>• Water</li> <li>• Salt-reduced or no-added-salt tomato or vegetable juices</li> <li>• Cordial and soft drink</li> <li>• Hot chocolate, tea and coffee</li> <li>• Lollies and chocolate</li> </ul>	<ul style="list-style-type: none"> <li>• Sports drinks and electrolyte drinks</li> <li>• Shop-purchased tomato or vegetable juice</li> <li>• Soluble aspirin</li> <li>• Effervescent drinks and vitamin drinks</li> <li>• Some lollies and sweets (e.g. liquorice, sour lollies, honeycomb)</li> </ul>



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## Further information about following a reduced-salt diet

The above list of foods is intended as a general guide only. An accredited practising dietitian will provide specific advice for you and design an eating and shopping plan, which makes it easy to follow a reduced-salt diet.

## Take-home points

To reduce fluid retention:

- Reduce your salt (sodium) intake and increase your protein intake
- Do not add salt while preparing or cooking food or to your meal
- Read food labels and compare the sodium content per 100 g of food between similar products and choose the brand with the lowest sodium content
- Choose low-salt (sodium) foods

### Acknowledgements

This resource was reviewed and updated by the following health professionals in 2021:

Dr Khalid Rasouli, Gastroenterology Advanced Trainee, Blacktown Hospital, Sydney, NSW, Australia

Dr Helen Vidot, Specialist Dietitian in Liver Disease and Transplantation, Royal Prince Alfred Hospital, Sydney, NSW, Australia

Dr Avik Majumdar, Staff Specialist Transplant Hepatologist, AW Morrow Gastroenterology and Liver Centre, Royal Prince Alfred Hospital, Sydney, NSW, Australia

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 Level 1, 517 Flinders Lane, Melbourne VIC 3000 | Phone: 1300 766 176 | email: gesa@gesa.org.au | Website: <http://www.gesa.org.au>

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