

The information provided in this section provides general dietary advice for people with hepatitis C. This information is not intended to replace the advice of a dietitian/nutritionist who can develop a program to meet individual needs. To find an Accredited Practising Dietitian go to the Dietitians Association of Australia website: www.daa.asn.au

What benefits can come from a healthy diet?

The benefits of a healthy diet include:

- relief from some of the symptoms related to hepatitis C infection and treatment e.g. nausea;
- provide your body with the nutrients necessary to help regenerate new liver cells;
- provide energy to perform daily activities;
- boost your immune system;
- help maintain a healthy weight; and
- reduce the risk of many chronic diseases, such as heart disease, diabetes, obesity and some cancers.

Food alone cannot make you healthy. Good health is dependent upon a range of factors, including:

- physical factors e.g. genes;
- social factors e.g. whether you have access to transport to seek medical advice;
- mental factors e.g. whether you have people around you to support you; and
- lifestyle factors e.g. regular exercise/physical activity.

Making healthy lifestyle choices such as choosing to quit smoking or exercising regularly can also provide you with a sense of wellbeing and empowerment.

What is a healthy diet?

Dietary advice should be based on individual circumstances but a healthy and balanced diet as recommended for all Australians in the Australian Guide to Healthy Eating is appropriate for most people with hepatitis C. The Australian Guide to Healthy Eating recommends four basic principles for a healthy diet, these are:

1. Eat enough food from each of the five food groups every day. The five food groups are:

- bread, cereals, rice, pasta, noodles;
- vegetables;
- fruit;
- milk, yoghurt, cheese; and
- meat, fish, poultry, eggs, legumes (beans) and nuts.

The guide provides a break down of the number of serves recommended for children and male and female adults for each food group. Download the **Australian Guide to Healthy Eating** from the Publications section of www.health.gov.au

2. Eat a variety of foods from within each of the five food groups from day to day, week-to-week and at different times of the year.

- Within each of the five food groups, different foods provide more of some nutrients than others. If you eat a variety of foods from within each group, it is likely that you will get all the nutrients provided by the foods in that group e.g. in the vegetable group, carrots and pumpkin contain much more vitamin A than do potatoes.

Examples of promoting variety in your diet:

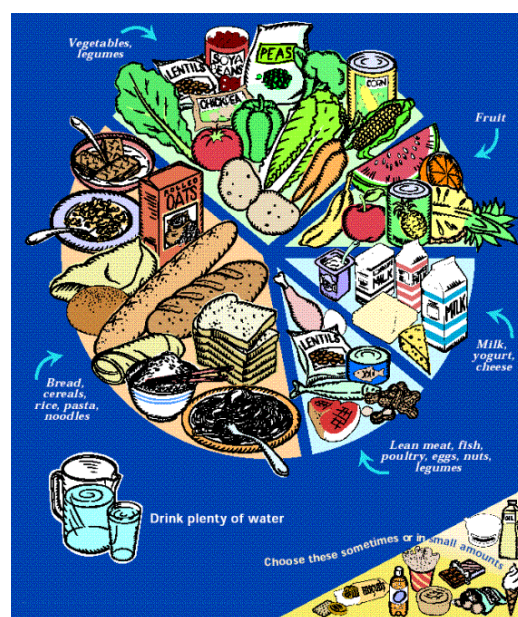
Typical Day	Suggestion for increased variety
Breakfast—wheat grain cereal, milk and orange juice.	Untoasted muesli with added seeds, served with yoghurt, fresh fruit and unsweetened juice.
Lunch—toasted cheese and tomato sandwich on wholemeal bread, using low fat mayonnaise for spread instead of margarine.	Multigrain bread sandwich with chicken (or ricotta cheese if you are a vegetarian), tomato, low-fat cheese, onion, capsicum, mushrooms, and lettuce, using avocado for spread, served with a low-fat fruit smoothie.
Dinner—Lamb chops (fat left on), with mashed potato, peas, broccoli and carrots.	Stir-fry using lean meat/fish/tofu with variety of vegetables (eg broccoli, capsicum, zucchini, cabbage, garlic, onion, mushrooms, carrot, shallots and fresh herbs), served on noodles.

3. Eat plenty of plant foods; moderate amounts of animal foods in proportions shown in the guide and small amounts of extra foods, margarines and oils.

Plants foods	Animal foods	Extra foods
Bread, cereal, rice, pasta, noodles, vegetables, legumes and fruit.	Milk, yoghurt, cheese, meat, fish, poultry, and eggs.	Biscuits, cakes, desserts, pastries, soft drinks, lollies, chocolates and high fat snack items such as crisps, pies, pasties, and sausage rolls.

4. Drink plenty of water

- For good health the Guide recommends adults drink 8 glasses of water a day and more during physical activity and in hot weather.
- The image below shows the recommended proportion of each food group in a healthy diet.



Fats

Just because you have hepatitis C does not mean you necessarily have to cut out fats and oils all together. A moderately low fat diet, i.e. a 'healthy diet' as recommended for all Australians, is appropriate for most people with hepatitis C. It is important to have small amounts of fat in your diet because your body needs essential fatty acids to function properly however a high fat diet is a risk factor for obesity, some cancers, heart disease and diabetes.

Unsaturated versus saturated fats

Unsaturated fats are a type of fat found in many oils, good quality margarines, raw nuts and seeds, fish and avocado. Replacing saturated fats with unsaturated fats in a low fat diet can have a positive benefit for your health by helping to lower cholesterol levels in your blood. These fats are known as either polyunsaturated or monounsaturated. Saturated fats are a type of fat found in animal products, palm and coconuts. These fats result in increased cholesterol levels and therefore can increase your risk of heart disease. In order to reduce your intake of saturated fats it is recommended that you choose lean cuts of meat, consume low fat dairy products, avoid those high fat snacks and take-away foods.

Foods that contain polyunsaturated and monounsaturated fats	Foods that contain saturated fats
<p>Polyunsaturated: Sunflower, safflower, corn and soya bean oils & margarines. Fish—tinned and fresh. Nuts—walnuts, hazelnuts, brazil nuts. Seeds.</p> <p>Monounsaturated: Olive, avocado, peanut and canola oils & margarines. Avocado, Olives & Nuts—almonds, peanuts Seeds.</p>	<p>Butter, cream, cream-based dressings, solid frying fats and cooking margarine. Cakes, biscuits, pastries, chocolate, potato crisps and other high-fat snack products and takeaway foods to which saturated fat is added during processing or cooking. This is usually in the form of vegetable fat or hydrogenated vegetable oil (in baked foods) and palm oil (in fried foods).</p>

Some people with hepatitis C will find if they are feeling sick or nauseated (i.e. feel like vomiting) that fatty foods may not agree with them. Avoiding such foods while you feel nauseated and seeking dietary advice from a dietitian/nutritionist may be helpful in reducing the effect of nausea. For more information on how to reduce nausea and loss of appetite download the **Hepatitis C: symptom management factsheet** on this site.

Dairy Products

There is no reason for people with hepatitis C to avoid dairy foods. Milk and milk products are excellent sources of nutrients such as calcium, riboflavin, protein and vitamin B12. Without consuming dairy products it can be hard to get enough calcium in your diet.

Dairy foods do however contain high levels of saturated fat. Therefore it is important to choose reduced-fat dairy products or calcium enriched soy milk products as an alternative.

If you can not tolerate milk or milk products use calcium enriched soymilk or try foods such as sardines, salmon, lentils, almonds, brazil nuts and dried apricots which provide smaller amounts of calcium.

Sugar

There is no published scientific evidence to suggest that people with hepatitis C have any problems metabolising sugar. Sugar however, can effect your teeth so maintaining good oral hygiene by brushing at least twice each day, flossing and visiting the dentist regularly is very important.

Some foods, such as fruit and milk naturally contain sugars. Manufactured foods often have large amounts of sugar added to them during processing such as lollies and sweets.

During digestion, sugars such as sucrose and lactose and other carbohydrates such as starch break down into simple sugars. These provide energy (calories, kilojoules) for body cells and are sometimes stored for future use. It is better to obtain energy from nutrient rich foods such as wholegrain breads and cereals, meats, fruits, nut, fish, tofu or vegetables.

Excess body fat results when a person eats more kilojoules/calories than what is needed by the body, regardless of whether those kilojoules came from sugars, protein or alcohol.

Caffeine

There is no scientific evidence to suggest that tea, coffee or caffeine-containing drinks (cola) cause particular problems for people with hepatitis C if these are consumed in moderation. Drinks that help keep you alert, such as Red Bull and VT contain about two and half times the amount of caffeine found in regular cola drinks. Avoid these drinks if you are limiting your caffeine intake.

People with hepatitis C who experience fatigue may find that avoiding caffeine-containing beverages in the evenings improves their sleep, which in turn may reduce fatigue. Some caffeine-free alternatives include:

- decaffeinated coffees;
- fruit teas (must say caffeine free);
- herbal teas (must say caffeine free);
- milkshakes;
- fruit juice; and
- water.

Salt

All Australians are advised to eat less salt whether they have hepatitis C or not. Your body needs small amounts of salt to function because it is an essential nutrient that the body cannot make by itself. However, when salt is eaten in excess, it can increase your risk of developing high blood pressure.

The easiest way to start reducing salt in your diet is to use less salt when cooking or reduce salt use at the dinner table. When shopping, try to buy low salt varieties of food and products that are labelled 'no added salt'.

Food Additives

If you are sensitive to particular food additives or natural chemicals that occur in food, you need to avoid these whether you have hepatitis C or not. It is unlikely that hepatitis C will cause you to be more sensitive to food additives, such as colours or flavours. Avoiding all artificial colours, flavours and preservatives would severely limit your shopping choices and could add unnecessary stress to your life without any significant health benefits.

If you have an allergic reaction to a particular food or food additive, it is recommended that you have the diagnosis confirmed by a medical clinic that specialises in allergies. A GP can provide a referral to such a clinic. When particular allergies are confirmed, an Accredited Practising Dietitian (APD) can provide dietary advice.

Dietary Supplements

Vitamin and mineral supplements

If you are eating a well balanced diet you should be getting enough vitamins and minerals from your food, but supplements may be useful if your appetite is poor. Be careful not to exceed the recommended dose as this may be harmful.

Herbal treatments

Some people with hepatitis C have found an increase in well-being through the use of herbal treatments and other complementary therapies. Although scientific natural therapies have been used for chronic hepatitis C infection and the associated symptoms, there haven't been many scientific trials to investigate their effectiveness.

Particular herbs can damage the liver and interfere with prescribed medications. It is advisable to discuss all treatment options with your doctor and specialist as well as complementary/alternative practitioner. Click here for more information on complementary therapies.

Possible supplements toxic to the liver

The table below lists some of the supplements that have been shown to be toxic to the liver in some people. Please note that this list is not exhaustive there may be other substances that are toxic to your liver not included in this table.

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|-----------------------|--------------------|
| • Barberry | • Black cohosh |
| • Chaparral | • Comfrey |
| • Creosote bush | • Germander |
| • Gordolobo yerba tea | • Greasewood |
| • Greater celandine | • False pennyroyal |
| • Jamaican bush tea | • Jin Bu Huan |
| • Kombucha tea | • Sassafras |
| • Senna | • White chameleon |

Healthy Fast Foods

Not all fast foods or convenience foods lack nutritional value. Here is a list of healthy convenience foods to think about next time you're on the run:

- hamburgers or steak sandwiches made with lean meat and extra salad on wholemeal bread or a roll, with little or no butter or margarine;
- grilled fish, instead of fried, served with lemon or vinegar, rather than salt;
- thick chips, rather than thin cooked in good quality oil—these absorb less fat when frying (wedges are a healthier choice than chips);
- bread-based take-away food such as sandwiches, rolls and wraps. Choose wholemeal bread varieties of pita bread, flat bread and rolls;
- asian dishes that are steamed and braised and include plenty of vegetables, rather than battered or fried dishes;
- low-fat milk drinks, fruit juice, mineral water and low-fat smoothies;
- barbecued chicken with skin removed—it is healthier than deep-fried chicken, especially if you don't eat the skin;
- kebabs;
- pasta with vegetable based sauces, rather than cream-based sauces;
- pizzas with low-fat toppings, such as pineapple, mushrooms, capsicum, onions, olives and other vegetables with a small amount of lean ham rather than salami or other types of sausage;

- salads with lean skinless chicken or turkey, salmon or tuna. Avoid high-fat dressings, fried croutons and bacon;
- baked potatoes in their jackets with low-fat sour cream, yoghurt or cheese and chives;
- soups—make a large pot of soup with low-fat ingredients, refrigerate or freeze and then serve as required; and
- low-fat frozen yoghurt or ice cream for dessert.

The myths about food labelling:

Reduced fat	Does not mean the product is low in fat, it may just mean that the food contains less fat than the original or a similar product, and it may still be a high-fat food.
Lite or light	Does not mean that a product is low in fat content or light in kilojoules, it may just mean the product contains less salt or fat than other products. 'light' normally refers to a product's light flavour or colour e.g. light olive oil has a light colour and flavour but it is still high in fat content.
No cholesterol or cholesterol free	May not mean that a product is low in fat. Cholesterol is found in animal fat. Foods made with vegetable oil will have no cholesterol but vegetable oil is still nearly 100% fat.

These are just some of the more obvious myths when it comes to food labelling. It is important to remember that the nutritional information listed in table form on food packaging provides an accurate breakdown of the composition of food products, including sodium and saturated fats content.

For more information

For further information on hepatitis C please contact the national infoline 1300 HEP ABC (1300 437 222). The infoline diverts to information and support lines at your local state or territory hepatitis council.

To find an Accredited Practising Dietitian go to the Dietitians Association of Australia website: www.daa.asn.au

Some of the information on hepatitis C above has been abridged from various resources, these resources include:

The Guide to Healthy Eating for People with Hepatitis C (Hepatitis Australia)—can be ordered from your local Hepatitis Council (ph. 1300 437 222) or download PDF from www.hepatitisaustralia.com

The Australian Guide to Healthy Eating (Australian Government)—Download Consumer Guide from the Publications section of www.health.gov.au

Health care worker guide to nutrition and hepatitis C (HEPNUT)—Download PDF from www.hepatitisc.org.au/edu/hepnut.html

The diet dilemma and hepatitis C: separating fact from fallacy (HEPNUT)—Download PDF from www.hepatitisc.org.au/edu/hepnut.html

What is a Healthy Diet When You Have Hepatitis C factsheet (Hepatitis Council of QLD)—Download PDF from www.hepatitisc.asn.au

Diet & HCV factsheet (Hepatitis C Council of NSW)—Download PDF from www.hepatitisc.org.au/quickref/factsheet.html

Other useful sites for people trying to manage a balanced diet include: www.nhaa.org.au