Metabolic Associated Fatty Liver Disease (MAFLD)

This resource is for people with metabolic associated fatty liver disease (MAFLD). It provides nutrition and lifestyle information to help you manage your condition.

What is MAFLD?
MAFLD is a condition where excess fat builds up in the liver. Risk factors include:
- Being obese or overweight
- Having diabetes
- Having high blood cholesterol and triglyceride (a type of blood fat) levels

Are MAFLD and NAFLD the same?
- In the past, fatty liver was called non-alcoholic fatty liver disease, also known as NAFLD. Recently however, a decision was made between clinicians and patients to change the name to MAFLD to better describe the condition.

What are the effects of MAFLD?
MAFLD does not always cause harm to the liver, but it can:
- Increase your risk of diabetes, heart attack or stroke
- Progress to more severe liver disease. The fat around the liver can cause inflammation of the liver. Ongoing inflammation may cause cirrhosis (irreversible scarring of the liver), which can lead to liver failure.

What should you do if you have MAFLD?
- Avoid smoking and alcohol
- Participate in regular exercise
- Eat a healthy balanced diet
- Have good blood sugar control (if you have diabetes)
- Treat high blood pressure and high cholesterol
To reduce the risk of developing MALFD you can:
1. Eat a healthy diet
2. Reach a healthy weight
3. Increase exercise

1. Eat a healthy diet
Make changes slowly so you can continue them long-term, maintain weight loss and keep your liver healthy.

Base your meals on whole foods from the Mediterranean diet
1. Vegetables – add as many vegetables as you can to your meals and snacks.
2. Fruit – eat at least two pieces of fruit per day.
3. Add olive oil to your food (up to 3 tablespoons per day).
4. Include fish at least twice weekly.
5. Choose low fat meat or meat alternatives like chicken, eggs, and legumes (e.g. chickpeas, kidney beans, and nuts).
6. Reduce red meat to once per week or on special occasions.
7. Choose grainy breads and cereals, rice and pasta.
8. Choose low fat dairy (e.g. milk, yoghurt, cheese).
Eating foods from these main food groups will help keep you full and reduce the need to snack on high fat or high sugar foods.
Refer to the NEMO Mediterranean diet sheet for more information (www.health.qld.gov.au/nutrition/patients).
**NOTE:** When you have liver disease, it is best to avoid alcohol. But this should be discussed with your GP or liver doctor.

**Switch to healthier drinks**
Choose water as your main drink. Replace sugary drinks like soft drinks, cordials, sports drinks and juices with ‘no added sugar’ or ‘diet’ alternatives. Talk to your doctor to check if you should avoid alcohol.

**Reduce your portion sizes**
Use smaller plates and bowls to help reduce calories for weight loss.
**Fill up on high fibre foods**

Eat high fibre foods such as grainy breads and cereals, vegetables, legumes and fruit. By choosing these foods, you may find you can eat more food but with less calories. Examples of higher fibre choices with more food and less calories include:

- 2 pieces of fruit **instead** of 1 glass of fruit drink
- 1 medium jacket potato **instead** of ½ bucket of hot chips
- 2 cups air-popped popcorn **instead** of ½ small packet chips

**Plan your meals**

This can help you avoid making impulse decisions or reduce the temptation to grab takeaway, which may lead to overeating.

**Build a balanced plate**

Include a large serve of vegetables (1/2 of the plate), a palm sized protein portion (1/4 of the plate), and a small serve of carbohydrate (1/4 of the plate).
Not all fats are equal
All fats are high in energy, however there are several different types of fat.

Unsaturated fats are a healthy type of fat. **Include** these fats in your diet to reduce your risk of heart disease.

They include:
  ✓ Monounsaturated fats – found in extra virgin olive oil, avocados, olives and nuts (almonds and cashews).
  ✓ Polyunsaturated fats – found in sunflower seeds and oil, canola oil, soybeans and soymilk, nuts (walnuts, hazel and Brazil), seeds (chia, flaxseed and sunflower), oily fish and seafood (salmon, sardines, tuna and mussels).

Saturated fats are not so good for our health and should be **limited** in your diet.
  ❌ Saturated fats – found in animal fats (butter, lard, ghee), coconut oil, full fat dairy, deep fried foods and pastries, fat on meat, cream, sour cream and deli meats.

Limit added sugars
Added sugars can increase the calories in your diet and are low in nutrients. Ideas to reduce added sugar include:
  • Use less/no sugar in your tea/coffee
  • Try fruit instead of sugar on cereal
  • Use sugar free spreads instead of jam and honey. Options include vegemite, peanut butter (no added sugar) or spreads sweetened with artificial sweeteners or stevia.
  • Replace fruit juice with fresh fruit
  • Eat tinned fruit in water/natural juice instead of syrup
  • Use unsweetened yoghurt (natural/Greek) instead of sweetened yoghurt
  • Eat less biscuits and cakes

2. Reach a healthy weight
If you are overweight, losing 5-10% of your body weight can:
  • Decrease fat in the liver
  • Improve blood sugar control
  • Improve blood pressure
Aim for a loss of 0.5-1kg per week.
Your current weight: ____________
Your goal weight: ____________
Your waist circumference: ____________

Goal waist circumferences:
Females: Initially: less than 88cm
       Long term: less than 80cm
Males:   Initially: less than 102cm
       Long term: less than 94cm

3. Increase exercise

- Increasing activity can help you reach a healthy weight. It can also decrease your risk of developing diabetes and help control your blood sugar.
- Try to do at least 150 minutes of moderate intensity exercise per week (30 minutes of activity 5 times per week), increasing to 30-45 minutes daily. Examples of moderate intensity exercise include brisk walking, dancing and gardening.
- Talk to your doctor before starting any physical activity if you have existing medical conditions, as you may benefit from a referral to an exercise physiologist. It’s also important to keep in touch with your diabetes educator and manage your blood sugar well if you have diabetes.

Ideas to increase activity

- Aim to be active every day in as many ways as you can (e.g. join a dance class or walking group).
- Think of movement as an opportunity, not an inconvenience (e.g. go for a bike ride or play tennis with friends).
- Increase your incidental exercise (e.g. walk briskly, clean the house, sit less).
- Choose activities that you can do often and find easy and enjoyable, such as walking.
- Find an activity that best matches your current level of fitness (e.g. break exercise up into 2-3 x 15 min blocks).
- Consider including resistance (strength) training to maintain muscle strength.
Suggested meal plan

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<thead>
<tr>
<th>BREAKFAST</th>
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<tbody>
<tr>
<td>1 cup cooked oats (1/2 cup raw oats) or ½ - 1 cup high fibre cereal with low fat milk</td>
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<tr>
<td>2 slices of multigrain bread with baked beans / tomato / mushrooms / peanut butter (no added sugar) / cottage cheese</td>
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<td>AND</td>
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<tr>
<td>1 piece of fruit</td>
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<td>Water to drink</td>
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| MORNING TEA             |                                                     |
| See snack ideas         |                                                     |

| LUNCH                   |                                                     |
| 2 slices multigrain bread OR 1 bread roll / wrap |                                                     |
| AND / OR               |                                                     |
| Salad with tuna / salmon / chicken / low fat cheese |                                                     |
| Water to drink          |                                                     |

| AFTERNOON TEA           |                                                     |
| See snack ideas         |                                                     |

| DINNER                  |                                                     |
| 100 – 120g lean chicken (no skin) / fish / eggs / legumes |                                                     |
| AND                    |                                                     |
| Large serve of vegetables (e.g. beans, broccoli, cabbage, carrots, cauliflower, peas, spinach, zucchini) |                                                     |
| AND                    |                                                     |
| 1 cup pasta / 2/3 cup rice / 1/2 cup sweet potato / 1 medium potato |                                                     |
| Water to drink          |                                                     |

| SNACK IDEAS:            |                                                     |
| Fruit                  |                                                     |
| Low fat natural / Greek / diet yoghurt (100-200g) |                                                     |
| 2 oatmeal biscuits     |                                                     |
| 2-3 grainy crackers with cottage cheese and tomato |                                                     |
| 1 thin slice of fruit bread |                                                     |
| Raw, unsalted nuts (5-6) |                                                     |