



FIT FACTS



The Management of Reflux

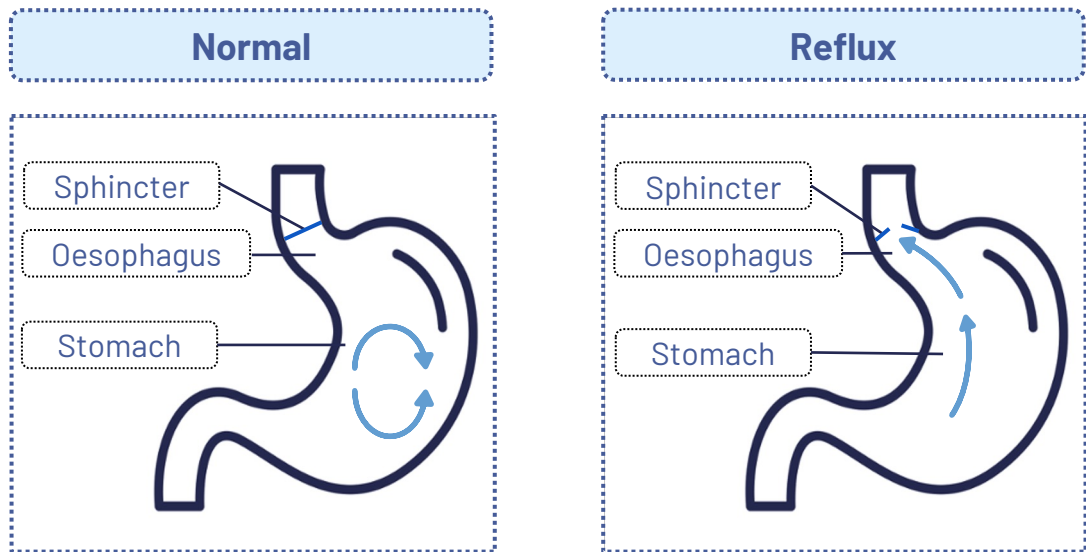


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What is Reflux?

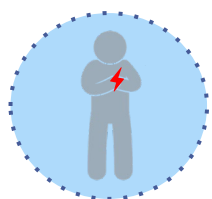
At the bottom of the oesophagus, there is a muscle (sphincter) that remains predominantly closed to prevent the stomach contents going back into the oesophagus. It opens to allow food to pass through to the stomach.



Reflux, also known as GORD, is a condition in which the stomach contents are brought back up into the oesophagus.¹⁻² It is one of the most common gastrointestinal conditions and can affect an individual's wellbeing and quality of life.¹

Symptoms and Complications of Reflux

Reflux can cause troublesome symptoms including:



- ※ A burning sensation in the chest (heartburn), most commonly after eating. However, in older adults it can also occur during sleep or rest.
- ※ Appearance of gastric contents (acid and undigested/partially digested food) in the throat or mouth (regurgitation) without nausea or a sour taste in the mouth.³

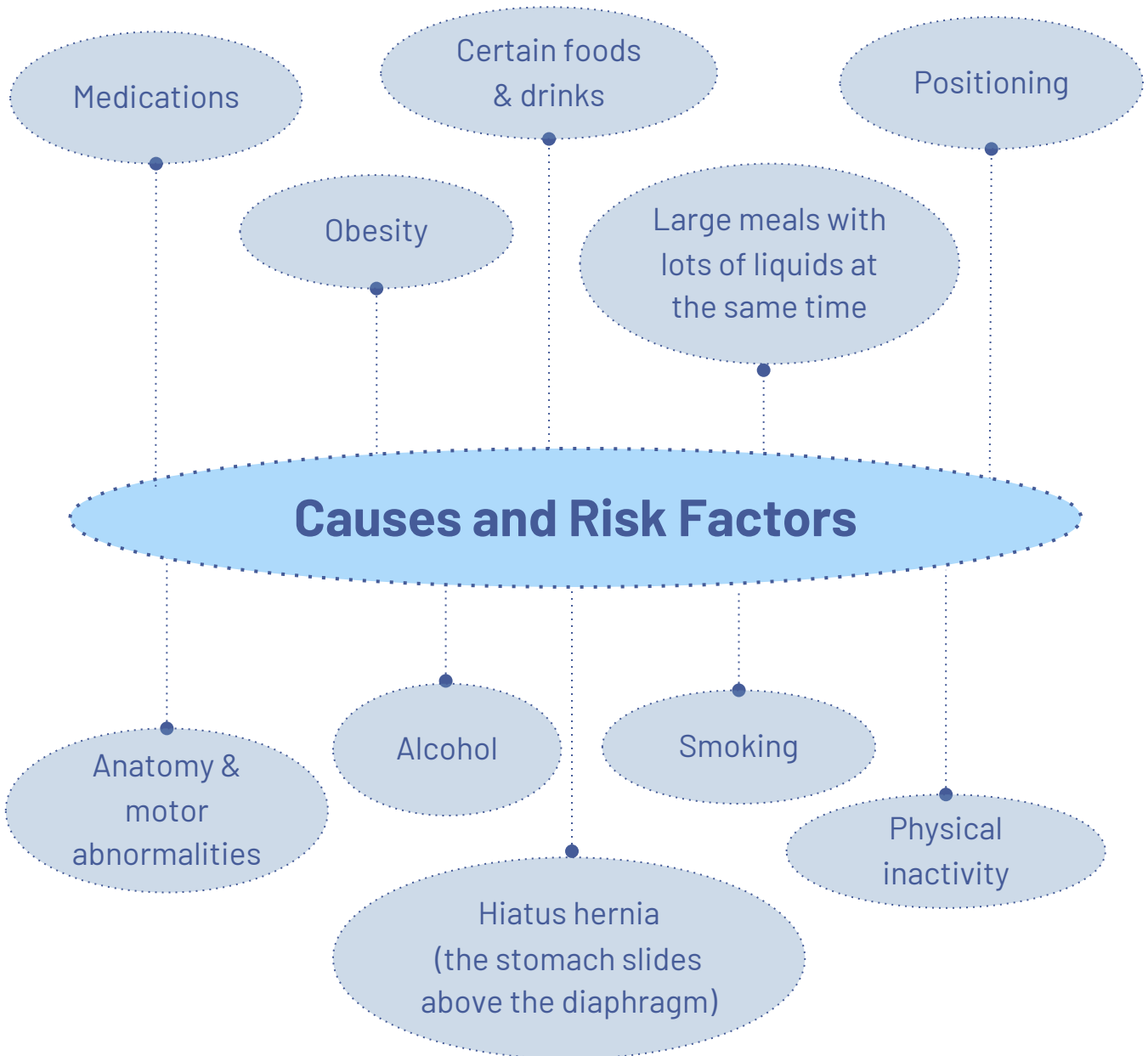
Reflux can also lead to serious complications which older adults may commonly experience due to other medical conditions and increased number of risk factors, such as:



- ※ Inflammation in the oesophagus (esophagitis)
- ※ Tightening or narrowing of the oesophagus (strictures)
- ※ Replacement of cells with acid resistant cells (Barrett's oesophagus)
- ※ Esophageal cancer.³

What Causes Reflux?

Many factors contribute to reflux.¹⁻³



Treatment for Reflux

Lifestyle changes are an important step in the treatment and management of reflux. They help to reduce factors that cause or make reflux worse and prevent further complications.^{2,4}



Timing of Meals

Timing of meals are helpful in reducing night-time symptoms, particularly regurgitation.³

- ✱ Have regular meals
- ✱ Do not skip meals
- ✱ Do not eat large amounts before bedtime
- ✱ Avoid eating meals at least 3 hours before bedtime.



Breakfast



Lunch



Dinner



≥ 3 hrs



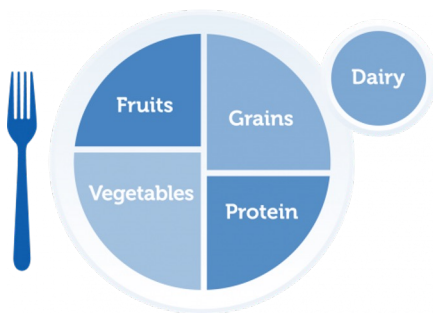
Treatment for Reflux



Diet

Making changes to your diet help decrease or prevent reflux symptoms.^{1-4,6}

- ✳ Avoid eating large meals with lots of liquids. Instead aim for small size portions and drink less during mealtimes
- ✳ Avoid foods and drinks that worsen reflux including alcohol, green and black tea, coffee, chocolate, peppermint, high fat foods, spicy foods, fried foods, fast foods, tomato, citrus, onion, garlic and carbonated beverages such as soft drinks and energy drinks
- ✳ Eat at a slow pace
- ✳ Reduce body fat with diet and exercise.



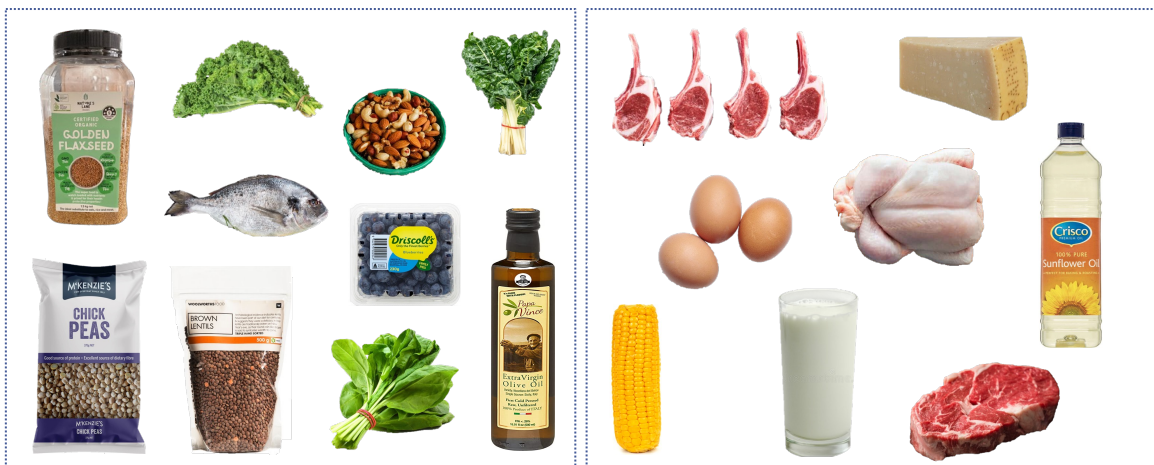
Treatment for Reflux



Mediterranean Diet

Follow the Mediterranean diet and it's good eating and lifestyle habits to reduce reflux symptoms, the risk of complications and need for medications.^{1-4,6}

- ✧ Eat high fibre foods including legumes, fruits and vegetables particularly leafy green vegetables
- ✧ Eat fish 3 or more times a week
- ✧ Use extra virgin olive oil
- ✧ Eat vegetables and salads at almost every meal
- ✧ Incorporate more plant foods
- ✧ Eat less red meat, dairy and omega-6 fatty acids such as eggs and poultry.



Eat more

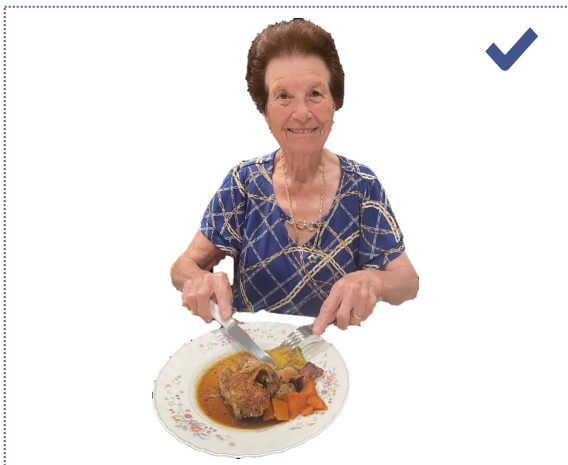
Eat less

Treatment for Reflux



Mediterranean Diet

- ✳ Use traditional methods to cook most of your meals including boiling, steaming, stewing and casseroles
- ✳ Make fresh or dried fruit your choice for dessert and most snacks
- ✳ Fast from all meat, chicken, fish, dairy and eggs at least 2 days/wk
- ✳ Be active everyday
- ✳ Limit takeaway foods
- ✳ Do not drink coffee as your first drink. Instead start with 2 glasses of water.



Treatment for Reflux



Mediterranean Diet

- ✧ Eat seeds and a handful of nuts everyday
- ✧ Choose whole grain varieties such as grainy wholegrain bread, brown rice, barley, wholemeal pasta, and high fibre cereals
- ✧ Use herbs and spices such as cinnamon, ginger, rosemary, oregano and turmeric in your cooking
- ✧ Limit alcohol consumption
- ✧ Have water everyday as your main drink
- ✧ Eat main meals in the company of family or friends.



Treatment for Reflux



Sleeping Position

Sleeping in the correct position helps alleviate reflux symptoms and improve acid clearance in the oesophagus. Therefore, decreasing acid exposure time to the oesophagus which can lead to less damage.^{6,9}



Sleep on your left side with your head elevated by either using:

- * Blocks under the bed posts at the head end of the bed
- * A wedge
- * Two pillows.



Avoid sleeping on your:

- * Right side
- AND
- * Back.

Treatment for Reflux

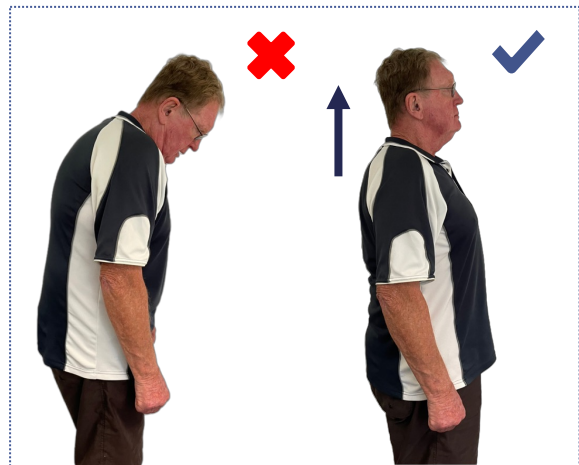


Positioning

It is important to maintain good posture during everyday activities as poor posture places pressure on the stomach and chest allowing the stomach contents to be brought back up into the oesophagus.



- * Pull the shoulders down, away from the ears
- * Squeeze shoulder blades towards the spine and down towards the waist.



- * Do not hunch or place your head in front of your body
- * Keep head in line with shoulders and over your spine.

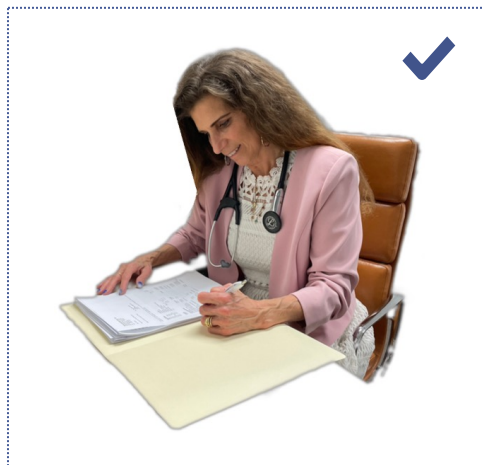
Treatment for Reflux



Lifestyle

Modifying lifestyle factors that cause or exacerbate reflux is important for the management and prevention of symptoms.

- ✧ Avoid tight belts and constricting garments
- ✧ Stop smoking
- ✧ Avoid caffeine-containing medications such as migraine tablets
- ✧ Ask your doctor if any medications could be causing or worsening reflux symptoms such as aspirin, non-steroidal anti-inflammatory drugs, corticosteroids, calcium channel blockers, nitrates, tricyclic antidepressants, theophylline, salbutamol, anticholinergics and benzodiazepines.



Treatment for Reflux



Medications

Medications can be taken to help relieve and manage reflux symptoms.^{2-3,6-7}

Immediate Relief

For immediate relief of symptoms particularly heartburn, antacids such as Gaviscon and Quick Eze can be taken.⁶



- * Antacids neutralise the stomach acid.⁶
- * They can be bought as a chewable tablet or liquid from a chemist without a prescription or local supermarket.

Treatment for Reflux



Medications

Long-term Management

Prescription medications can also help manage reflux.^{2-3,6-7}



- * The most common medications used are called proton pump inhibitors and histamine-2 receptor antagonists.^{2-3,7}
- * They help to reduce the amount of stomach acid produced or its acidity level.⁶

! To optimise the function of proton pump inhibitors, they should be taken 30 to 45 minutes before a meal.⁶

Treatment for Reflux



Medications

! Although proton pump inhibitors are commonly used, they are not recommended for long term or daily use.¹⁰

! They have been associated particularly in the elderly and/or immunocompromised with an increased risk of:

- ✧ Nutritional deficiencies such as vitamin B12, iron, calcium, folate, zinc and magnesium
- ✧ Osteoporosis
- ✧ Gastrointestinal malignancies
- ✧ Fractures particularly in the hip
- ✧ Pneumonia
- ✧ Gastrointestinal infections including C. difficile infection
- ✧ Dementia
- ✧ Kidney injury or disease such as interstitial nephritis
- ✧ Adverse changes to the gut microbiome (microorganisms living within the gut) which is critical for nutrition and metabolic, immune, physiological and neurobehavioral function.^{5,7,10}

Therefore, it is important to have regular follow-ups with your doctor to monitor the ongoing need for these medications and its side effects.⁶

Exercise Precautions for Reflux

It is important to take precautions prior or during exercise to avoid increases in reflux and minimise symptoms.



Timing Relative to Meals

- ✓ Avoid exercise or lying down soon after eating a meal
- ✓ Wait 2 hours after eating a meal to exercise
- ✓ Go for a gentle walk after a meal as it aids with digestion and reduces reflux symptoms.

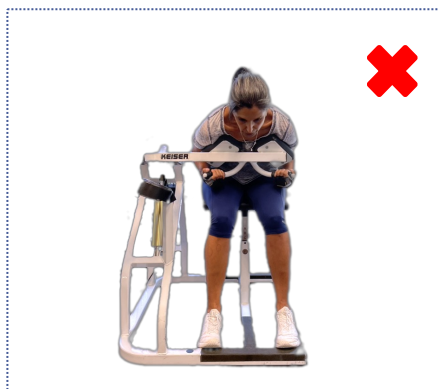


Exercise Precautions for Reflux

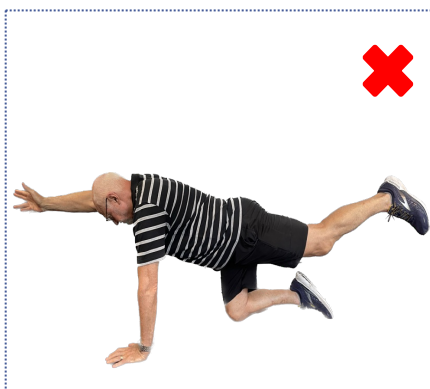


Head Down Positions

- ✓ Avoid any position where the head is below the heart or the forward bend of the spine is required such as certain yoga or pilate positions as they can increase reflux.



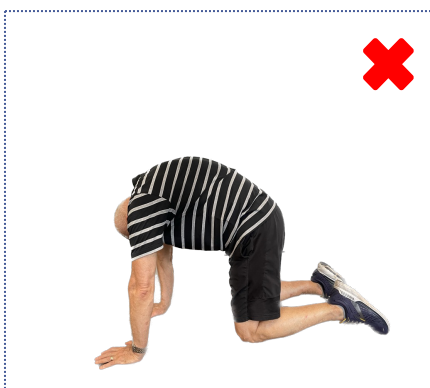
Abdominal machine



Bird dog



Sitting very reclined on a recumbent bike



Cat stretch

Exercise Precautions for Reflux



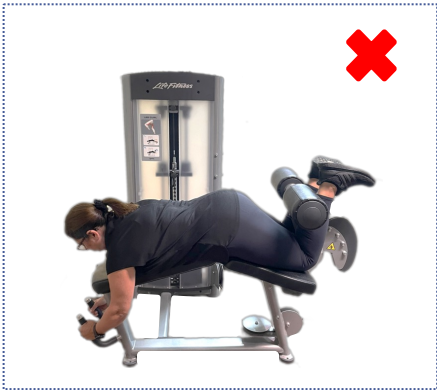
Head Down Positions



Seated goodmorning



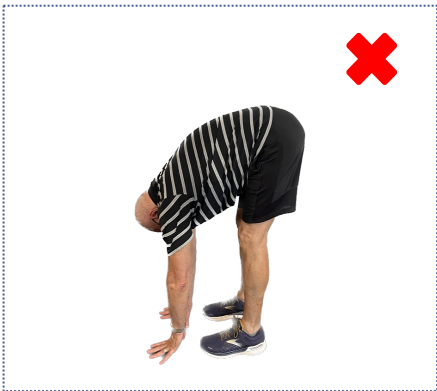
Bent over row



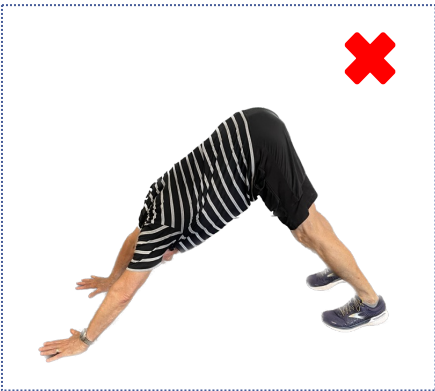
Prone leg curl machine



Incline leg press machine



Hamstring stretch



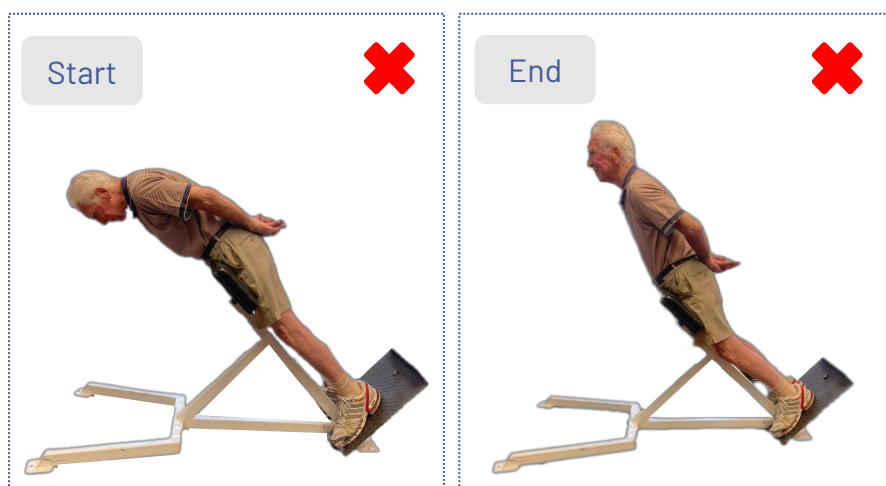
Downward dog

Exercise Precautions for Reflux

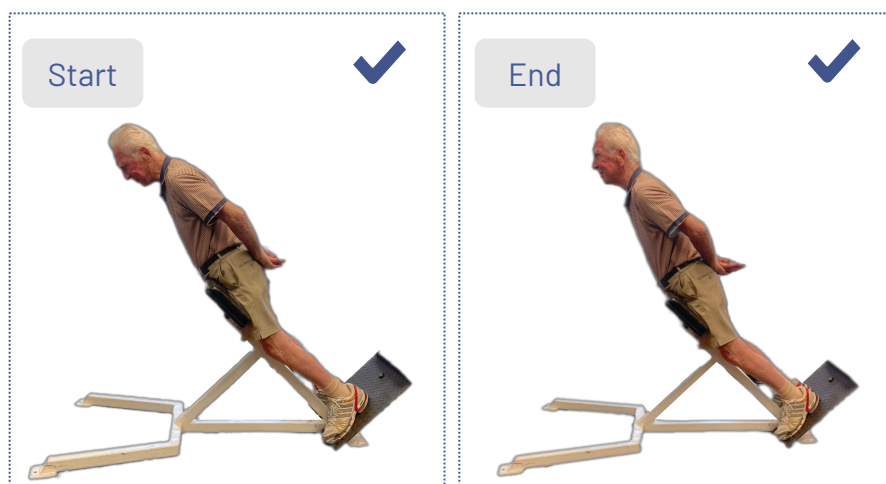


Head Down Positions

- ✗ Do not complete the back extension exercise from a forward bend position then extend back.



- ✓ Instead, start in a neutral or minimal forward bend position then extend back.



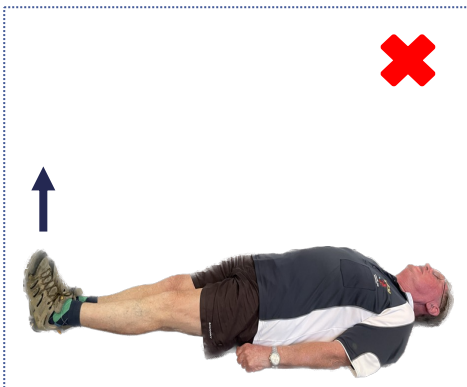
Exercise Precautions for Reflux



Supine Positions



- X Do not complete any exercise lying on your back (supine) or halfway reclined (semi recumbent) as it relaxes a muscle (sphincter) at the bottom of the oesophagus allowing the stomach contents to be brought back up into the oesophagus.



Straight leg raises



Semi recumbent bike

Exercise Precautions for Reflux



Upright Versus Semi Supine Positions

It is best to do exercises in an upright position.

- ✓ Being upright allows gravity to close the muscle (sphincter) at the bottom of the oesophagus therefore, keeping the stomach contents in the stomach.



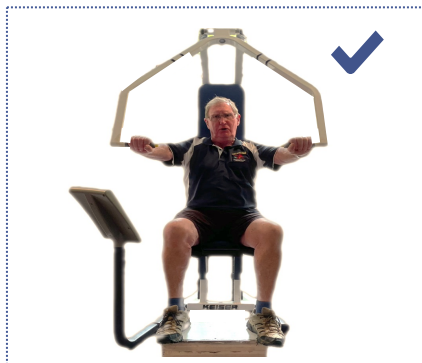
Seated knee extensions



Knee flexion machine



Upright bench exercises



Chest press machine



Knee extension machine



Upright row machine

Exercise Precautions for Reflux



Upright Versus Semi Supine Positions

- X Whereas in semi supine positions (laying on your back with your knees bent), gravity relaxes the muscle (sphincter) at the bottom of the oesophagus allowing the stomach contents into the oesophagus, increasing reflux.



Sit ups



Glute bridges



Flat bench exercises

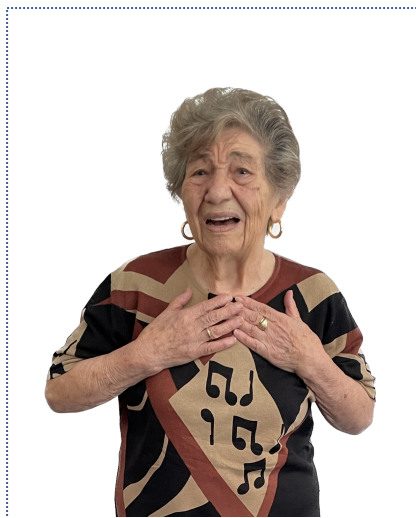
Exercise Precautions for Reflux



Distinguishing Indigestion from Angina

It can be difficult to tell the difference between indigestion and angina symptoms.

Angina is chest pain when there is reduced blood supply to the heart.



- ✧ With angina, it is mainly characterised by chest pain which is usually diffused across the whole chest feeling like pressure and heaviness
- ✧ It usually is brought on by exertion and relieved by rest or a medication called nitrates.

! Angina can also present in other ways including:

- ✧ Pain in the arm, jaw or back
- ✧ Sweating
- ✧ Dizziness and/or lightheadedness
- ✧ Fatigue
- ✧ Shortness of breath
- ✧ Loss of colour in the skin or pale face
- ✧ Look of fear (face of impending doom).

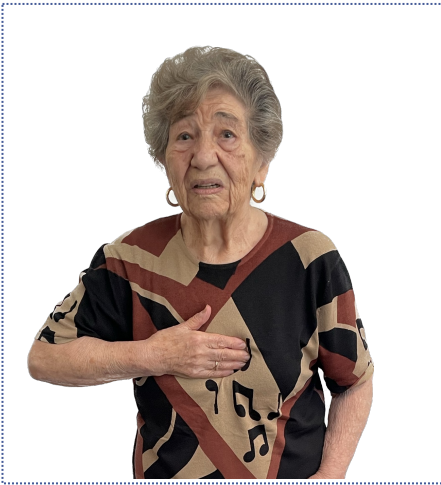


Exercise Precautions for Reflux



Distinguishing Indigestion from Angina

Indigestion is a discomfort or pain in the upper stomach.



- ✧ It usually occurs shortly after eating, particularly a large and/or spicy meal
- ✧ Indigestion symptoms will get exacerbated or worse lying down and bending over.

! Indigestion can also be accompanied with:

- ✧ Discomfort or burning pain at the breastbone
- ✧ Sensation that food is coming back into your mouth
- ✧ Bitter or acidic taste at the back of your throat
- ✧ Nausea
- ✧ Sore throat
- ✧ Gas and/or burping
- ✧ Bloating or sense of fullness.



! If chest pain is getting worse overtime or you suspect it is angina, immediately seek medical attention.



Please contact **Professor Maria Fiatarone Singh AM, MD, FGSA, FRACP** and our friendly staff if you would like more information on exercise management for Reflux or any other medical questions you may have.



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