# Syncope and collapse Tīrehe



The information in this guide is accurate to the best of our knowledge as of June 2023.

# Definition

Syncope is a sudden transient loss of consciousness due to cerebral hypoperfusion, followed by spontaneous complete recovery, in a short period of time. There are three types: cardiac; orthostatic (postural) hypotension; and neurally mediated, also known as reflex syncope (Runser et al 2017; Thiruganasambandamoorthy et al 2020).

Collapse (also known as 'pseudo-syncope') is a sudden loss of consciousness due to causes that do not create cerebral hypoperfusion. In these cases, recovery time may be slower. Examples of causes of collapse include epileptic seizure, hypoglycaemia, hypoxia and poisoning.

## Key points

- Clinically, syncope and collapse present in the same way and require the same initial response. It is the assessment of likely causes that separates the conditions.
- Frail older people are more susceptible to syncope, are less likely to have syncopal warning signs (prodrome) and often do not recall the event (Pirozzi et al 2013).
- Syncope causes falls. However, not all falls are due to syncope (Wong 2018).

# Why this is important

Recurrent syncope has a negative effect on reported quality of life (McCarthy et al 2020). While syncope may have a simple reversible cause, it can also be a sign of a serious underlying condition (Runser et al 2017).

## Implications for kaumātua\*

Because a loss of consciousness can be frightening, it is important to take a holistic approach to assessing the impact of the syncopal episode on kaumātua. This may include finding out how they are feeling <u>**ā**</u> wairua (spiritually), <u>**ā-tinana**</u> (physically), and <u>**ā**</u> hinengaro</u> (mentally and emotionally). Kaumātua may experience <u>whakamā</u> (shame, embarrassment) related to syncope and may not report syncopal episodes to avoid burdening anyone else (see the *Guide for health professionals caring for kaumātua* | *Kupu arataki mō te manaaki kaumātua* for more information).

<sup>\*</sup> Kaumātua are individuals and their connection with culture varies. This guide provides a starting point for a conversation about some key cultural concepts with kaumātua and their whānau/family. It is not an exhaustive list; nor does it apply to every person who identifies as Māori. It remains important to avoid assuming all concepts apply to everyone and to allow care to be person and whānau/family led.

It is essential to provide kaumātua and **whānau**/family with all the information they need to understand the approach to assessing and treating syncope. You can support them by:

- including whānau/family in conversations
- providing whānau/family with opportunities to share their observations and insights and valuing their input
- setting aside enough time to discuss matters with all parties involved
- thoroughly discussing and explaining decision-making about any changes in the plan of care (eg, medication changes, investigations).

## Assessment

A recommendation is to take a standardised approach to syncope including in responding to the situation and taking a thorough history and physical exam (Runser et al 2017).

Among the three general syncope classifications (Pirozzi et al 2013), research suggests that cardiac and orthostatic syncope are the most frequent types in older people (de Ruiter et al 2018; Wong 2018). However, many factors can contribute to syncope and/or collapse (Wong 2018).

Type of syncope	Mechanism	Associated conditions and events
Cardiac* (impaired output)	Arrhythmias	Bradycardia, tachycardia, drug-induced rhythm
	Structural	Valvular disease
	Chronic disease	Heart failure
	Acute illness	Myocardial infarction
Orthostatic (postural) hypotension**	Autonomic system	Age-related changes in blood pressure regulation
	failure	Parkinson's disease, Lewy body dementia, multiple system atrophy, diabetes, chronic renal failure, vitamin B12 deficiency
	Postprandial***	After eating meals
	Volume depletion	Bleeding, diarrhoea, dehydration (reduced thirst), pro-longed sitting (volume pooling in peripheries)
	Drug induced	Vasodilators, diuretics, anticholinergics, antihypertensive
	Acute illness	Sepsis, infection, electrolyte imbalance
Neurally mediated (reflex)	Vasovagal	Emotional stress
	Situation	Coughing, sneezing, after exercise, associated with defecation or urination

#### Note:

- \* Cardiac syncope is the classification most associated with mortality.
- \*\* Orthostatic (postural) hypotension is defined as a reduction of  $\geq$  20 mmHg systolic or  $\geq$  10 mmHg diastolic within 3 minutes of standing. In older people, this is often complicated by the presence of hypertension in the supine (lying) position (Wong 2018).
- \*\*\* Postprandial hypotension is defined as a reduction of ≥20 mmHg systolic or systolic blood pressure of < 90 mmHg within 2 hours of starting a meal. It is associated with meals that are large or have a high carbohydrate content. It occurs more often in people with diabetes, hypertension or Parkinson disease and those with polypharmacy and/or diuretics (Wong 2018).

## Treatment

Treatment focuses on the initial response and on finding a reason for the loss of consciousness (see the '**Decision support**' section). It is important to be aware of the person's advance care planning preferences when responding to syncope or collapse.

### Orthostatic hypotension treatments (Palma and Kauffman 2020)

#### Non-pharmacological treatments

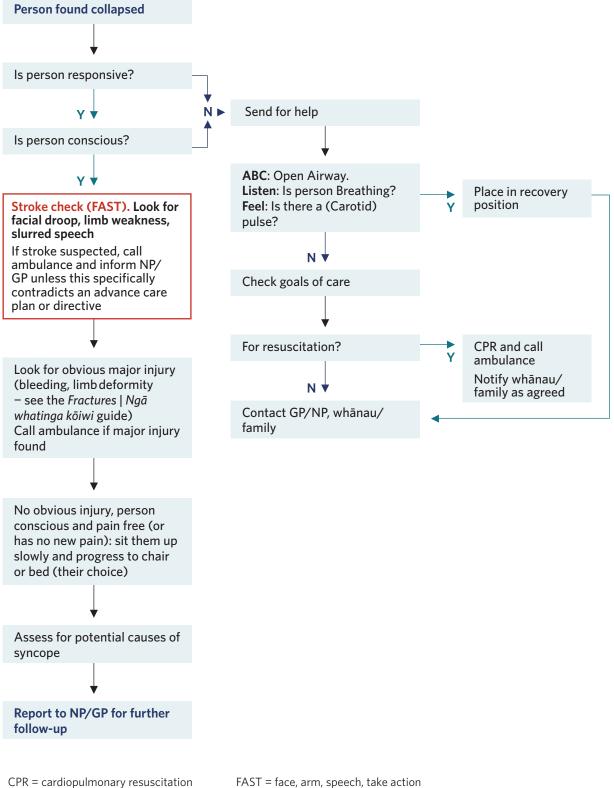
- Maintain activity as much as possible.
- Avoid simple sugars, alcohol and coffee.
- Bolus 500 ml water can raise blood pressure (lasts less than 1 hour).
- Change position slowly.
- Reduce blood pooling by elevating leg, leg exercises (toe raises, thigh contraction), physical activity (avoid prolonged sitting) and compression garments such as abdominal binders.
- Sleep with head of bed elevated 30 to 45 degrees.
- Possibly increase salt in diet but **only** in discussion with general practitioner or nurse practitioner.

#### **Pharmacological**

- Access medication review for drugs that worsen hypotension (diuretic, antihypertensive, alpha-blockers) and potential treatments.
- Provide anaemia treatment.

## **Decision support**

#### Responding to syncope or collapse



GP = general practitioner

FAST = face, arm, speech, take action NP = nurse practitioner

#### **Review history for potential** causes of syncope Collect eye witness accounts of syncope □ Abdominal pain or nausea (vasovagal) □ Aura or clonic tonic movement (seizure) □ Palpitations or slow pulse (cardiac cause) Signs or symptoms before □ Facial droop, arm weakness, slurred speech (TIA) syncope □ Headache (subarachnoid haemorrhage) □ None (cardiac or vasovagal) □ Defecating, eating, coughing (situational) □ Emotional distress, fear, pain (vasovagal) □ Exertion (cardiac cause) □ Standing (hypotension) Precipitating factors □ Unexplained fall (cardiac) □ Environmental (heat exhaustion, dehydration) □ Whānau/family (reported concerns and events eg, panic attack) □ Behavioural (not eating or drinking) □ Amnesia (seizure or vasovagal) □ Incontinence, fatigue, tongue biting, confusion (seizure) Symptoms after syncope □ Slow pulse (cardiac cause) □ Prolonged syncope (seizure, stroke, metabolic, sepsis) □ Diabetes, Parkinson's disease (postural hypotension) □ Diabetes (hypoglycaemia) □ Heart disease (cardiac cause) Medical history □ Epilepsy (seizure management issue) □ Previous stroke (stroke, haemorrhage) □ Previous syncope with acute illness □ Anaemia, B12 deficiency □ Anti-arrhythmic or anti-hypertensive (cardiac syncope) □ Anticoagulants (brain bleed) □ Antipsychotic or antidepressant (cardiac syncope) Medication □ Anticholinergic (stroke, haemorrhage) □ Diuretic (dehydration hypotension, electrolyte imbalance) □ Adverse effect of medication change □ Lying and standing blood pressure □ Pulse (rate and rhythm) □ Respiratory rate and oxygen saturation □ Temperature, sweating, respiratory Physical exam □ Mental status (increased confusion, distraction, irritability) □ Respiratory wheeze, crackles or congestion (infection/CHF) □ Peripheral oedema (CHF) □ Central neurological signs or limb weakness □ Abdominal pain or swelling (constipation or mass) Review available laboratory □ Any abnormalities or test overdue? tests Prepare information for reporting to NP/GP

## Assessing for potential causes of syncope or collapse

## References | Ngā tohutoro

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