



Syncope Trust And Reflex anoxic Seizures®

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Take Fainting to Heart

Syncope and Falls in the Elderly (SaFE)



Working together with individuals, families and medical professionals to offer support and information on syncope and reflex anoxic seizures

www.stars-international.org

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Glossary of terms

Arrhythmia Heart rhythm disorder

Asystole a cardiac arrest rhythm in which there is no discernible electrical activity on the ECG monitor

Autonomic nervous system Part of your nervous system that controls involuntary functions of the body such as the heartbeat and breathing.

Bradycardia A slow heart rate, normally less than 60 beats per minute

Carotid sinus Part of the major artery supplying blood to the head

Electrocardiogram (ECG) A simple test that records the heart's rhythm and rate

Hypotension Low blood pressure

Orthostatic Relates to standing upright

Postprandial hypotension When blood pressure falls as a consequence of eating food

Pre-syncope Refers to the symptoms typically preceding a faint

Reflex syncope (vasovagal syncope) A transient condition resulting from an abrupt dysfunction of the autonomic nervous system which regulates blood pressure and heart rate

Syncope A medical term for a faint caused by a sudden lack of blood supply to the brain (often due to bradycardia or asystole)

This booklet provides information for patients, carers and those individuals involved in the care of the elderly. It highlights that syncope should be investigated as the cause of falls and not assumed that old age generally is the reason for a fall.

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Syncope causes falls in older people

What is syncope?

SYNCOPE is a medical term for a blackout that is caused by a sudden lack of blood supply to the brain. This is very common, and many people may experience an episode during their life time.

There are many causes of syncope but the most common is reflex syncope, also known as neurally mediated syncope or vasovagal syncope.

Fainting may occur where the person gently collapses to the ground, usually after feeling dizzy and sweaty. It may be more complex when patients experience symptoms such as jerking of muscles or limbs and even incontinence. Some individuals may take a little while to come around. An older adult (65 years and over) is particularly prone to syncope. This is because older people are less able to deal with falls in blood pressure as the body's mechanisms slow over the years and cannot counteract changes as quickly. Elderly people are also particularly prone to syncope due to chronic medical problems and conditions such as diabetes, congestive heart failure, coronary artery disease, strokes, mini strokes and Parkinson's disease. Many will have been prescribed multiple medications, the side effects of which can cause syncope.

Syncope causes falls

Though it is not widely known, syncope causes a significant number of falls in older people and one of the major concerns is the potential injury that may be caused.

Syncope and falls are the most common reasons for older patients to attend accident and emergency. It is also estimated that syncope accounts for 10 – 20% of falls which cause injuries.

Syncope undetected

30% of patients aged 65 years and over who have experienced syncope will not be aware that they are losing consciousness and will report they have fallen. This can be due to a brief loss of memory in the time just before losing consciousness (medically termed retrograde amnesia).

As a consequence, doctors may be likely to diagnose a mechanical fall and patients will not be investigated for actual cause, such as low blood pressure or an arrhythmia (irregular, too fast or too slow heart rhythm). Unfortunately, this may leave the loss of unconsciousness untreated.

Syncope misdiagnosed

Syncope is often misdiagnosed in the event of a fall because there are many risk factors for falls in older adults. People are very aware of deteriorating eye sight or 'a knee giving way' contributing to falls but syncope should also be investigated as a cause.

"I never realised that I was losing consciousness. Each time I found myself on the ground, I thought I had tripped. I was consistent in my description of my symptoms but they kept sending me to the eye doctor. I have injured myself falling on so many occasions"

Mary,
syncope patient



**Blackouts and unexplained falls
are not all caused by syncope.
A multi-disciplinary approach should
always be taken when diagnosing.**

Common causes and preventative advice on syncope in older people

- Medication:** Syncope can be caused by a side effect of some medications. The biggest culprits are heart and blood pressure medications, sleeping pills, anti-depressants and anti-inflammatory drugs. These can decrease blood pressure and increase the chance of fainting.
- Prevention advice:** Your doctor should review your medications regularly to ensure they are not causing problems. Take medications as prescribed and do not take extra pills to make up for missed doses. If concerned discuss with your doctor or practice nurse.
- Dehydration:** Syncope can occur if you have not drunk enough fluids.
- Prevention advice:** Make sure you are having enough fluids throughout the day. It is recommended that adults should drink two litres of water a day. It is best to have a glass first thing in the morning before getting up and before meals. Increased fluid intake will support your blood pressure. Remember that if you have been ill, exercising or there has been warm weather you should increase your fluid intake further.
- Note:** It is important that you talk to your GP before increasing or decreasing your fluid intake as you might not be able to make changes due to other medical conditions, eg heart failure.
- Orthostatic hypotension: (Low blood pressure)** This occurs when the blood pressure falls excessively when standing. Orthostatic hypotension can be age-related but can be commonly due to medication.
- Prevention advice:** Elevate the top end of your bed. Sleep with your head elevated 5 – 20 degrees. This should help keep your blood pressure up and decrease the sudden blood pressure drop when getting up. Ensure you get up slowly and carefully.

Postprandial hypotension:

This is a drop in blood pressure within two hours of eating. Postprandial hypotension occurs when the circulation is needed to assist in digestion which leads to a drop in blood pressure. Symptoms may be subtle with slight dizziness, fatigue and weakness during or when standing up after eating.

Prevention advice:

If you are vulnerable to syncope after a meal, you are advised to have a brief walk following a meal or rest sitting in a chair with your feet slightly raised. These actions will help keep your blood pressure up and prevent blood pooling in your feet. Large quantities of carbohydrates (bread, potatoes, pasta) should be avoided.

Carotid sinus hypersensitivity: (CSH)

This is a common cause of syncope in older adults. The carotid sinus is part of the major artery supplying blood to the head. Any movement that causes stimulation of the area (turning the head, looking up or even a tight collar) can cause syncope.

Prevention advice:

Simple techniques such as loosening your collar and avoiding turning your head or neck too far will help reduce your chance of syncope.

Heart rhythm problems: Syncope can be caused by a heart rhythm that is irregular, too fast (tachycardia) or too slow (bradycardia), resulting in a reduced blood supply to the brain.

Prevention advice:

A pacemaker can help some individuals with syncope caused by heart rhythm problems. A pacemaker monitors the heart and restores the heart to normal heart rhythm, therefore maintaining blood flow to the brain and reducing syncope.

Diagnostic tests for syncope

Reflex syncope is not life threatening and, with certain measures and sometimes medication, can be controlled. However, some causes of syncope are not benign and can be dangerous. Some older people can have electrical abnormalities of the heart which should not be overlooked and could be confused with reflex syncope if simple tests are not done. Some of the most important high-risk electrical diseases of the heart can be diagnosed or suggested by an ECG.

Every patient who suffers a blackout should be given a 12-lead ECG

- **12-lead electrocardiogram (ECG)** is done to check heart rhythm analysis and look for arrhythmias and genetic, inherited or familial heart rhythm disorders.

The following tests are sometimes used to help a diagnosis:

- **Heart rhythm monitor** is used to record heart rhythms whilst away from hospital. An individual is given a small monitor to wear all the time ranging from 24 hours to two weeks and this will detect any arrhythmia (abnormal heart rhythm) that may occur during that time. Please see Which ECG Is Right For You booklet
- **Implantable Cardiac Monitor (ICM)** is used to monitor heart rhythms for up to 3 years at a time if the episodes are less frequent than every two weeks. The insertion of an ICM is performed as a day case surgical procedure.
- **Tilt table test** is used to induce a fainting episode or syncopal attack while connected to heart and blood pressure monitors and allow a doctor to observe changes in pulse and blood pressure when a patient goes from lying to standing. It helps to establish the cause of fainting and falls. It may also help a doctor decide the best treatment. This test is normally carried out as an outpatient.

What to do if an elderly person falls

If an elderly person is syncopal and discovered on the floor then the following action should be followed:

- The individual should be quickly assessed for any injury following the fall
- If the person is sitting up, then assist them to a lying down position
- If unconscious and not injured, once on the floor the legs should be raised with the body remaining on the floor and this should speed up recovery
- If recovery is slow, the individual should be placed in the recovery position
- Upon recovery, allow the individual to slowly sit up and then gradually help them to their feet
- If symptoms of dizziness and light headedness continue, the individual should be assisted to lie down again
- If, despite the above, symptoms continue or there is further loss of consciousness, call for help
- If an elderly person experiences an unexplained syncopal episode more than once, then they should be seen by their GP.

Elderly people are vulnerable to episodes of low blood pressure. There are several reasons for this; they are less active and sit for longer periods, they can be on medications that affect blood pressure and they tend to drink less fluid than younger healthy people.

On top of that, people in care homes are more vulnerable to illness and are more prone to infection. During illness, blood pressure tends to fall and in some individuals this becomes a big problem when they stand up (postural hypotension), causing them to fall and sometimes black out.



Syncope in care home residents and elderly house bound individuals

Care home residents and house bound individuals are prone to syncope and every person who blacks out should be assessed by a doctor. Often the cause of syncope is treatable; low blood pressure (hypotension) can be improved by simple actions or if a slow heart rate (bradycardia) which is not unusual in a very elderly person, this can be treated with a pacemaker.

The following tips may help reduce the risk of syncope caused by low blood pressure in the more elderly individual:

Ensure individuals have adequate fluid intake – discuss with their doctors as other health conditions may limit the amount of fluid that can be given. Fluids should be drunk first thing in the morning, before getting up, and before meals. These are the times when the very elderly will be most vulnerable to syncope and an increased fluid intake during these times will help.

It is essential that an individual, whether housebound or in a care home, has their medication reviewed at least annually by their doctor.

Staying active is very important and gentle exercise like slow walking will help the veins to return blood to the lower body.

Encourage residents who sit for long periods to cross and uncross their legs before standing. This will keep blood pressure up and reduce dizziness when standing up.

Offer small meals often and avoid meals with large amounts of carbohydrates (bread, pastry, pasta) to assist digestion. Postprandial hypotension is one of the most common causes of fainting in the older population.

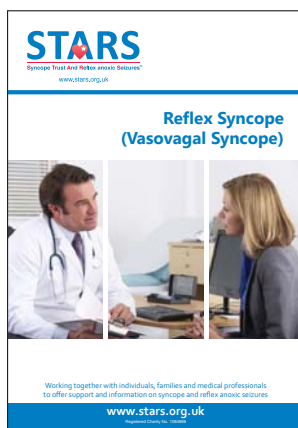
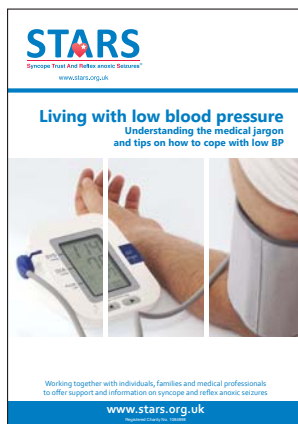
An individual who has suffered a blackout must be assessed by a medical professional and have their blood pressure checked, both lying down and then over three minutes of standing up. If a care home resident then the incident must be reported to their own doctor and the resident's care plan updated.

Summary

With an aging population, medical professionals are increasingly treating old and very old patients with unexplained loss of consciousness. It is a challenging situation that is beginning to be better recognised by clinicians. An elderly person is more likely to suffer from chronic medical problems that increase the chance of fainting. Advancing age can cause physical changes in heart rate and blood pressure and reduction in blood flow to the brain.

Why is diagnosis of syncope in the elderly important? When an older person faints they are unlikely to have warning, there is often no witness and they have no memory of the episode – which is why syncope in this age group is under-recognised and often attributed to a fall rather than transient loss of consciousness. Initial evaluation is extremely important but accurate diagnosis can vary considerably in the elderly person as it is not unusual for the older individual to be taking sedatives, diuretics, betablockers and vasodilators which can have a side effect of fainting.

In the older person, injuries such as fractures and head injuries are also more common which highlights the necessity for early investigation into the reason for the fall, an accurate diagnosis and treatment to prevent further episodes.



SYNCOPE IS A SYMPTOM NOT A CONDITION

These STARS publications will also provide information on syncope and management of the condition. They can be requested through info@stars-international.org or downloaded from the STARS website, www.stars-international.org

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Please remember that this publication provides general guidelines only. Individuals should always discuss their condition with a healthcare professional.

STARS would like to thank all those who helped in the development and review of this publication.

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