

SCAD for healthcare professionals

Spontaneous Coronary Artery Dissection

SCAD is underdiagnosed due to lack of awareness

➤ Patients fail to act on their symptoms ➤ Medics misdiagnose or diagnose late

What is SCAD?

Spontaneous Coronary Artery Dissection (SCAD) is a rare heart condition that cannot be predicted or prevented – yet.

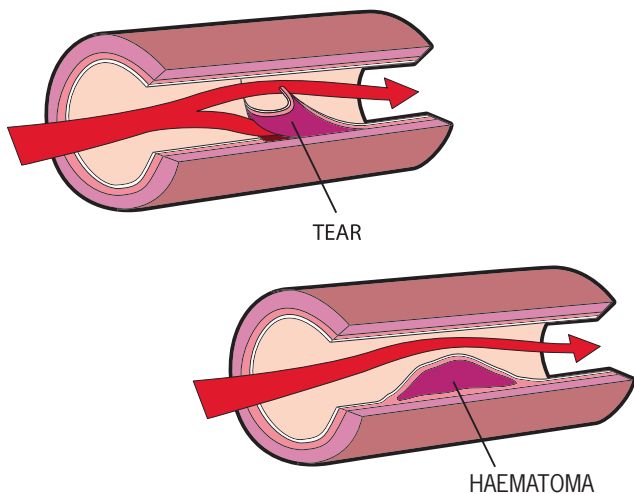
A false lumen develops in a coronary artery which extends, compressing the true lumen, resulting in a blockage or narrowing that prevents normal blood flow. This can cause heart attack, heart failure or cardiac arrest and can be fatal.

The cause of false lumen formation is unclear but there are currently two theories for mechanism:

- ❑ 'Inside-out': a tear develops in the artery wall forming a dissection flap that interferes with blood supply.
- ❑ 'Outside-in': micro-vessels within the artery wall haemorrhage, creating an intramural haematoma, which causes vessel narrowing and sometimes ruptures to form a dissection flap.

We don't yet know what causes SCAD. Some associations have been described with:

- ❑ Female sex hormones
- ❑ Fibromuscular Dysplasia (FMD)
- ❑ Connective tissue disorders
- ❑ Pregnancy and post-partum
- ❑ Extreme emotional stress
- ❑ Extreme exercise



Read more in the **European Society of Cardiology SCAD Position Paper** (bit.ly/2FkRkMj).

Symptoms of SCAD

SCAD usually presents as Acute Coronary Syndrome (ACS) so you're looking out for 'the usual' symptoms ie some or all of:

- ❑ central chest pain or discomfort
- ❑ arm pain or numbness
- ❑ pain in the jaw, back or shoulders
- ❑ nausea and vomiting
- ❑ diaphoresis
- ❑ dyspnoea

As these symptoms may be seen in a patient deemed 'low-risk' for ACS, caution is required.

Who gets SCAD?

SCAD has been reported across a wide age range (18-84 years) but the majority of cases are in young- to middle-aged women. SCAD has until recently been considered to be a disease of pregnancy and, although it can occur in pregnancy, most SCAD patients are not pregnant.

Current data indicates:

- ❑ 90% women/10% men
- ❑ Mostly aged between 44-53 years
- ❑ Have no or few conventional ACS risk factors
- ❑ 10% during or soon after pregnancy (P-SCAD) BUT 50% all post-partum coronary events due to SCAD
- ❑ Exercise trigger more common in men

How is SCAD diagnosed?

SCAD causes heart attacks but looks different from atherosclerosis. It is important to consider a SCAD diagnosis where a patient looks very different from a 'typical' heart attack patient. If your patient has possible cardiac symptoms, perform:

- ❑ ECG (may be normal)
- ❑ Troponin test (and repeat)
- ❑ Elevated troponin: Consider angiography; be aware that SCAD does not always have the same appearance as iatrogenic coronary artery dissection.

More research is needed to understand why fit, healthy people suddenly develop SCAD.

SCAD research

Dr David Adlam is leading the UK SCAD research project at the Leicester Cardiovascular Biomedical Research Centre. For more: scad.lcbru.le.ac.uk.

SCAD NHS clinics

Beat SCAD has found patients benefit from referral to a SCAD specialist and strongly encourage healthcare professionals to refer patients to one of the NHS Clinics held by Dr David Adlam at Glenfield Hospital or Dr Abtehale Al-Hussaini at the Chelsea and Westminster. For more see beatscad.org.uk/scad-nhs-clinic-referrals.

Cardiac rehab

All SCAD patients should be referred to, and encouraged to participate in, a cardiac rehabilitation programme to aid their recovery.

Beat SCAD

Beat SCAD was created by SCAD survivors who met on social media while trying to find support and information about SCAD. They helped initiate the UK research and Beat SCAD works closely with research team.

Beat SCAD's vision is a world that understands SCAD, where those affected are quickly and accurately diagnosed and never feel alone.

Beat SCAD's mission is to:

- raise awareness of SCAD among health professionals, as well as SCAD patients, their family and friends
- provide support for SCAD patients, family and friends
- raise funds for research into SCAD

Beat SCAD believes it's important that first responders, paramedics, midwives, cardiac rehab nurses, GPs, cardiologists and other healthcare professionals are aware of SCAD diagnosis and treatment, so fit, healthy people with cardiac symptoms receive the best treatment without delay.

Mental health

The psychological impact of SCAD can be huge and patients may experience depression or PTSD after their events. Having quick and easy access to counselling and other support to manage stress and grief can be invaluable to recovery.

Patient support

Peer support aids recovery. Others with the same diagnosis can help with understanding the condition and give hope for the future. We encourage healthcare professionals to direct patients to Beat SCAD for support.

Further information

Beat SCAD

beatscad.org.uk
contactus@beatscad.org.uk
facebook.com/beatscaduk
Youtube: bit.ly/1TXhiLV

SCAD research

Leicester Biomedical Research Centre
scad.lcbru.le.ac.uk
European Society of Cardiology SCAD Position Paper bit.ly/2FkRkMj
See beatscad.org.uk/useful-links for worldwide research

Facebook groups

SCAD – UK & Ireland Survivors
For SCAD patients bit.ly/1Mizg9a

SCAD Family and Friends Support Group
bit.ly/1TMQDwc

British Heart Foundation

bit.ly/1LaOgys

Other leaflets in this series:

- What is SCAD?
- Diagnosed with SCAD?
- Pregnancy-related SCAD case studies
- Helping children understand SCAD

Download pdfs from beatscad.org.uk/useful-documents or email contactus@beatscad.org.uk for printed leaflets.