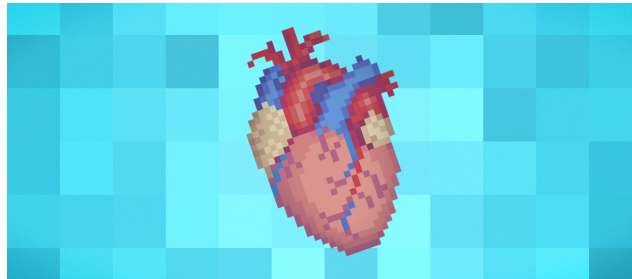


Cardiovascular History Taking

geekymedics.com/cardiovascular-history

Dr Lewis Potter

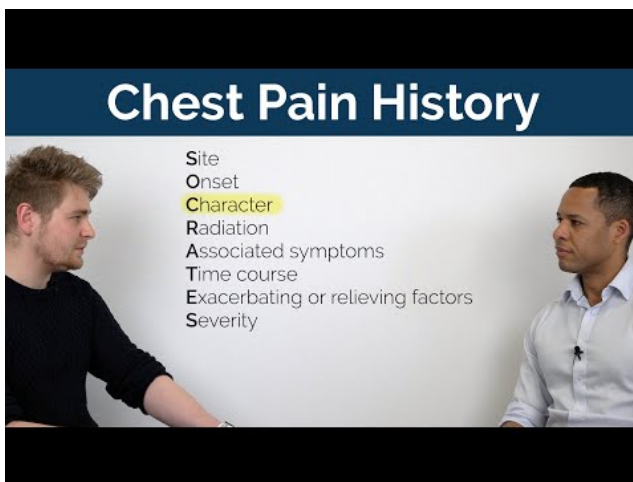
5 September 2010



Cardiovascular history taking is an important skill that is often assessed in OSCEs. This guide provides a structured approach to taking a cardiovascular history in an OSCE setting.

Download the cardiovascular history taking [PDF OSCE checklist](#), or use our [interactive OSCE checklist](#). You may also be interested in our [chest pain](#) or [palpitations](#) history taking guides.

Demonstration



Watch Video At: <https://youtu.be/eiRIm6BOzP4>

Opening the consultation

Wash your hands and **don PPE** if appropriate.

Introduce yourself to the patient including your **name** and **role**.

Confirm the patient's **name** and **date of birth**.

Explain that you'd like to take a history from the patient.

Gain consent to proceed with history taking.

General communication skills

It is important you do not forget the **general communication skills** which are relevant to all patient encounters. Demonstrating these skills will ensure your consultation remains patient-centred and not checklist-like (just because you're running through a checklist in your head doesn't mean this has to be obvious to the patient).

Some **general communication skills** which apply to all patient consultations include:

- Demonstrating empathy in response to patient cues: both verbal and non-verbal.
- Active listening: through body language and your verbal responses to what the patient has said.
- An appropriate level of eye contact throughout the consultation.
- Open, relaxed, yet professional body language (e.g. uncrossed legs and arms, leaning slightly forward in the chair).
- Making sure not to interrupt the patient throughout the consultation.
- Establishing rapport (e.g. asking the patient how they are and offering them a seat).
- Signposting: this involves explaining to the patient what you have discussed so far and what you plan to discuss next.
- Summarising at regular intervals.

You might also be interested in our [OSCE Flashcard Collection](#) which contains **over 2000 flashcards** that cover **clinical examination, procedures, communication skills and data interpretation**.

Presenting complaint

Use **open questioning** to explore the patient's **presenting complaint**:

- *"What's brought you in to see me today?"*
- *"Tell me about the issues you've been experiencing."*

Provide the patient with enough **time** to answer and avoid interrupting them.

Facilitate the patient to **expand** on their **presenting complaint** if required:

- *"Ok, can you tell me more about that?"*
- *"Can you explain what that pain was like?"*

Once the patient has finished speaking, it is helpful to check if there are any other **issues**. If the patient has **multiple presenting complaints**, work with them to **establish a shared agenda** for the rest of the consultation:

“Ok, so you’ve mentioned that you have three problems today that you’d like addressing. As there may not be time to address them all thoroughly in this consultation, it would be helpful to know which of the issues you feel is most important to deal with today. I’ll then let you know which of these issues I feel is the priority and we can agree on what the focus of today’s consultation should be. Does that sound ok?”

Open vs closed questions

History taking typically involves a combination of **open** and **closed questions**. Open questions are effective at the start of consultations, allowing the patient to tell you what has happened in their own words. Closed questions can allow you to explore the symptoms mentioned by the patient in more detail to gain a better understanding of their presentation. Closed questions can also be used to identify relevant risk factors and narrow the differential diagnosis.

History of presenting complaint

Patients with cardiovascular pathology can present with a wide variety of symptoms including but not limited to, chest pain, dyspnoea, palpitations, syncope, oedema and fatigue. The **SOCRATES** acronym (explained below) is a useful tool that you can use to explore each of the patient’s presenting symptoms.

Key cardiovascular symptoms

Symptoms that are typically associated with **cardiovascular disease** include:

- **Chest pain:** typically central or left-sided (e.g. pericarditis) and may radiate to the left arm and jaw (e.g. acute coronary syndrome). In some cases, patients having a myocardial infarction may complain of neck pain rather than chest pain.
- **Dyspnoea:** shortness of breath which may be exertional, related to lying down (orthopnoea) or wake the patient from sleep (paroxysmal nocturnal dyspnoea).
- **Palpitations:** a sensation of a fast-beating, fluttering or pounding heart that may feel regular or irregular. It can be useful to ask the patient to tap out the rhythm to assess its regularity.
- **Syncope:** rapid onset loss of consciousness (LOC) secondary to reduced cerebral perfusion. The LOC is typically short in duration with the patient recovering spontaneously. Syncope may be associated with sudden changes in posture (e.g. postural hypotension), exertion (e.g. aortic stenosis) or occur randomly (e.g. arrhythmia).
- **Oedema:** fluid retention in the tissues which may be peripheral (e.g. pedal oedema) or central (e.g. sacral oedema). In the context of a cardiovascular history, the cause of oedema is most likely to be congestive heart failure or a side effect of medications such as amlodipine.
- **Intermittent claudication:** muscle pain, typically in the calf, that develops during mild exertion and resolves upon resting. Intermittent claudication is caused by inadequate arterial supply secondary to peripheral vascular disease.

- **Systemic symptoms:** these can include fatigue (e.g. congestive heart failure), fever (e.g. pericarditis, endocarditis), weight loss (e.g. endocarditis, atrial myxoma) and weight gain (e.g. congestive heart failure).

SOCRATES

The **SOCRATES** acronym is a useful tool for exploring each of the patient's presenting symptoms in more detail. It is most commonly used to explore pain, but it can be applied to other symptoms, although some of the elements of SOCRATES may not be relevant to all symptoms.

Site

Ask about the **location** of the symptom:

- *"Where is the pain?"*
- *"Can you point to where you experience the pain?"*

Onset

Clarify **how** and **when** the symptom developed:

- *"Did the pain come on suddenly or gradually?"*
- *"When did the pain first start?"*
- *"What were you doing when the pain started?"*
- *"How long have you been experiencing the pain?"*

Character

Ask about the **specific characteristics** of the symptom:

- *"How would you describe the pain?"* (e.g. dull ache, throbbing, sharp)
- *"Is the pain constant or does it come and go?"*

Radiation

Ask if the symptom **moves anywhere** else:

- *"Does the pain spread elsewhere?"*
- *"Have you noticed the chest pain spreading towards your arm, back or neck?"*

Associated symptoms

Ask if there are other symptoms which are **associated** with the primary symptom:

"Are there any other symptoms that seem associated with the pain?" (e.g. fever in pericarditis, weight gain in heart failure)

Time course

Clarify how the symptom has **changed over time**:

“How has the pain changed over time?”

Exacerbating or relieving factors

Ask if anything makes the symptom **worse** or **better**:

- *“Does anything make the pain worse?”* (e.g. exertion in angina, lying flat in pericarditis)
- *“Does anything make the pain better?”* (e.g. glyceryl trinitrate in angina, leaning forwards in pericarditis)

Severity

Assess the **severity** of the symptom by asking the patient to grade it on a scale of 0-10:

“On a scale of 0-10, how severe is the pain, if 0 is no pain and 10 is the worst pain you’ve ever experienced?”

You can also ask how far a patient is able to walk (either on the flat or at an incline) without having to stop before they experience chest pain or significant breathlessness to get an idea of their current performance status.

Cardiovascular risk factors

When taking a cardiovascular history it’s essential that you identify **risk factors** for **cardiovascular disease** as you work through the patient’s history (e.g. past medical history, family history, social history).

Important **cardiovascular risk factors** include:

- Hypertension
- Hyperlipidaemia
- Diabetes
- Family history of cardiac disease
- Smoking

Ideas, concerns and expectations

A key component of history taking involves exploring a patient’s **ideas, concerns** and **expectations** (often referred to as **ICE**) to gain insight into how a patient currently perceives their situation, what they are worried about and what they expect from the consultation.

The exploration of ideas, concerns and expectations should be **fluid** throughout the consultation in **response to patient cues**. This will help ensure your consultation is more **natural, patient-centred** and not overly formulaic.

It can be challenging to use the ICE structure in a way that sounds natural in your consultation, but we have provided several **examples** for each of the three areas below.

Ideas

Explore the patient's **ideas** about the current issue:

- *“What do you think the problem is?”*
- *“What are your thoughts about what is happening?”*
- *“It’s clear that you’ve given this a lot of thought and it would be helpful to hear what you think might be going on.”*

Concerns

Explore the patient's current **concerns**:

- *“Is there anything, in particular, that’s worrying you?”*
- *“What’s your number one concern regarding this problem at the moment?”*
- *“What’s the worst thing you were thinking it might be?”*

Expectations

Ask what the patient hopes to **gain** from the consultation:

- *“What were you hoping I’d be able to do for you today?”*
- *“What would ideally need to happen for you to feel today’s consultation was a success?”*
- *“What do you think might be the best plan of action?”*

Summarising

Summarise what the patient has told you about their **presenting complaint**. This allows you to **check your understanding** of the patient's history and provides an opportunity for the patient to **correct** any **inaccurate information**.

Once you have **summarised**, ask the patient if there's anything else that you've **overlooked**. Continue to **periodically summarise** as you move through the rest of the history.

Signposting

Signposting, in a history taking context, involves explicitly stating **what you have discussed so far** and **what you plan to discuss next**. Signposting can be a useful tool when **transitioning** between different parts of the patient's history and it provides the patient with time to **prepare** for what is coming next.

Signposting examples

Explain what you have covered so far: *“Ok, so we’ve talked about your symptoms, your concerns and what you’re hoping we achieve today.”*

What you plan to cover next: *“Next I’d like to quickly screen for any other symptoms and then talk about your past medical history.”*

Systemic enquiry

A **systemic enquiry** involves performing a brief screen for symptoms in other body systems which may or may not be relevant to the primary presenting complaint. A systemic enquiry may also identify symptoms that the patient has forgotten to mention in the presenting complaint.

Deciding on which symptoms to ask about depends on the presenting complaint and your level of experience.

Some examples of **symptoms** you could **screen for** in each **system** include:

- **Systemic:** fevers, weight change, fatigue
- **Respiratory:** dyspnoea, cough, sputum, wheeze, haemoptysis, pleuritic chest pain
- **Gastrointestinal:** dyspepsia, nausea, vomiting, dysphagia, abdominal pain
- **Genitourinary:** oliguria, polyuria
- **Neurological:** visual changes, motor or sensory disturbances, headache
- **Musculoskeletal:** chest wall pain, trauma
- **Dermatological:** rashes, ulcers

Past medical history

Ask if the patient has any **medical conditions**:

- *“Do you have any medical conditions?”*
- *“Are you currently seeing a doctor or specialist regularly?”*

If the patient does have a medical condition, you should gather more details to assess **how well controlled** the disease is and what **treatment(s)** the patient is receiving. It is also important to ask about any **complications** associated with the condition including **hospital admissions**.

Ask if the patient has previously undergone any **surgery** or **procedures** (e.g. coronary artery bypass grafts, coronary artery stents, heart valve replacements):

- *“Have you ever previously undergone any operations or procedures?”*
- *“When was the operation/procedure and why was it performed?”*

Allergies

Ask if the patient has any **allergies** and if so, clarify **what kind of reaction** they had to the substance (e.g. mild rash vs anaphylaxis).

Examples of relevant medical conditions

Medical conditions relevant to **cardiovascular disease** include:

- Hypertension
 - Hyperlipidaemia
 - Angina
 - Myocardial infarction
 - Obesity
 - Chronic kidney disease
 - Atrial fibrillation
 - Stroke
 - Peripheral vascular disease
 - Rheumatic fever
-

Drug history

Ask if the patient is currently taking any **prescribed medications** or **over-the-counter remedies**:

“Are you currently taking any prescribed medications or over-the-counter treatments?”

If the patient is taking prescribed or over the counter medications, **document the medication name, dose, frequency, form and route.**

Ask the patient if they're currently experiencing any **side effects** from their medication:

“Have you noticed any side effects from the medication you currently take?”

Medication examples

Medications commonly **prescribed** to patients with cardiovascular disease include:

- Beta-blockers (e.g. atrial fibrillation)
- Calcium channel blockers (e.g. hypertension)
- ACE inhibitors (e.g. hypertension)
- Diuretics (e.g. congestive heart failure)
- Statins (e.g. coronary artery disease)
- Antiplatelets (e.g. coronary artery disease)
- Anticoagulants (e.g. atrial fibrillation, artificial heart valve)
- Glyceryl trinitrate spray (e.g. angina)

Some **over the counter drugs** which may impact the cardiovascular system include:

- NSAIDs (e.g. aspirin, ibuprofen): worsen heart failure, increase risk of myocardial infarction in at-risk patients
 - St John's Wort: an enzyme inducer that can reduce the effect of warfarin (i.e. cause INR to fall)
-

Family history

Ask the patient if there is any **family history** of cardiovascular disease:

“Do any of your parents or siblings have any heart problems?”

Clarify at what **age** the cardiovascular disease **developed** (disease developing at a younger age is more likely to be associated with genetic factors):

- *“At what age did your father suffer his first heart attack?”*
- *“When was your mother first diagnosed with high blood pressure?”*

If one of the patient’s close relatives are **deceased**, sensitively determine the **age at which they died** and the **cause of death**:

- *“I’m really sorry to hear that, do you mind me asking how old your dad was when he died?”*
- *“Do you remember what medical condition was felt to have caused his death?”*

If the patient reports **unexplained sudden deaths in young relatives**, consider the possibility of **cardiac channelopathies** (e.g. Brugada syndrome, long QT syndrome).

Social history

Explore the patient’s **social history** to both understand their **social context** and identify potential **cardiovascular risk factors**.

General social context

Explore the patient’s **general social context** including:

- the type of accommodation they currently reside in (e.g. house, bungalow) and if there are any adaptations to assist them (e.g. stairlift)
- who else the patient lives with and their personal support network
- what tasks they are able to carry out independently and what they require assistance with (e.g. self-hygiene, housework, food shopping)
- if they have any carer input (e.g. twice daily carer visits)

Smoking

Record the patient’s **smoking history**, including the type and amount of tobacco used.

Calculate the number of **‘pack-years’** the patient has smoked for to determine their cardiovascular risk profile:

- pack-years = [number of years smoked] x [average number of packs smoked per day]
- one pack is equal to 20 cigarettes

See our [smoking cessation guide](#) for more details.

Alcohol

Record the **frequency, type** and **volume** of **alcohol** consumed on a weekly basis.

See our [alcohol history taking guide](#) for more information.

Recreational drug use

Ask the patient if they use **recreational drugs** and if so determine the type of drugs used and their frequency of use. Recreational drugs may be the underlying cause of a patient's presentation with cardiovascular symptoms:

- **Cocaine, ecstasy** and **amphetamines** activate the sympathetic nervous system and thus have similar cardiovascular effects which can include tachycardia (palpitations), blood pressure abnormalities (dizziness, headache) and coronary artery vasospasm (chest pain).
- **Opiates** including morphine and heroin activate the parasympathetic nervous system leading to bradyarrhythmias and hypotension (syncope).
- **Cannabis** activates the sympathetic nervous system at low doses (e.g. tachycardia, hypertension) and the parasympathetic nervous system at higher doses (e.g. bradycardia, hypotension).
- **Intravenous drug use** of any kind predisposes patients to bacterial endocarditis.

Gambling

Ask the patient if they **gamble** and if they feel this is a problem.

Gambling is causative of several decrements to health directly, such as increased sedentary behaviour during the time spent gambling, poor sleep, reduced levels of self-care and anxiety. Patients with a gambling problem are also more likely to have substance misuse issues.¹

Problematic gambling can be assessed via the [Problem Gambling Severity Index](#) (PGSI).

Diet

Ask if the patient what their **diet** looks like on an **average day**. Take note of **unhealthy foods** which are known to contribute to cardiovascular disease (e.g. high salt intake, high saturated fat intake).

Exercise

Ask if the patient regularly **exercises** (including frequency and exercise type).

Occupation

Ask about the patient's current **occupation**:

- Assess the patient's level of activity in their occupation (sedentary jobs are associated with increased cardiovascular risk).
- If the patient is experiencing episodes of syncope and works with heavy machinery or at heights, it is important to advise them to take time off work until they have been fully investigated.

Driving

If the patient **drives** and has presented with syncope or other concerning cardiovascular symptoms it is important to advise them not to drive until they have been fully investigated and to inform the relevant driving authority (e.g. DVLA) of their current medical issues.

Closing the consultation

Summarise the **key points** back to the patient.

Ask the patient if they have any **questions** or **concerns** that have not been addressed.

Thank the patient for their time.

Dispose of PPE appropriately and **wash your hands**.

References

1. World Health Organisation. *The epidemiology and impact of gambling disorder and other gambling-related harm*. Published 26-28 June 2017. Available from: [[LINK](#)].
-

Copyright © Geeky Medics