

# EACVI CCT Certification

## Sample Questions

The following slides contain examples of questions from past EACVI CCT Certification exams



**EACVI**  
European Association of  
Cardiovascular Imaging  
 European Society of Cardiology

"Pitch" is a parameter used in spiral CT scanning.

Which of the following CT spiral pitch values would lead to oversampling?

A 0.2

B 1.0

C 1.1

D 1.2

E 3.2



Which of the following changes will improve the spatial resolution of CT images?

A Decrease the size of the focal spot

B Increase the kilovolts

C Increase the pitch

D Increase the slice thickness

E Use a smoother kernel



Which of the following is correct regarding spatial resolution?

- A It is determined by the detector bank size
- B It is independent of pixel size
- C It is inferior to the resolution of MR
- D It is not affected by collimator width
- E It is the ability to differentiate two adjacent objects



An 80-year-old man with breathlessness undergoes CT to assess suitability for transcatheter aortic valve replacement.

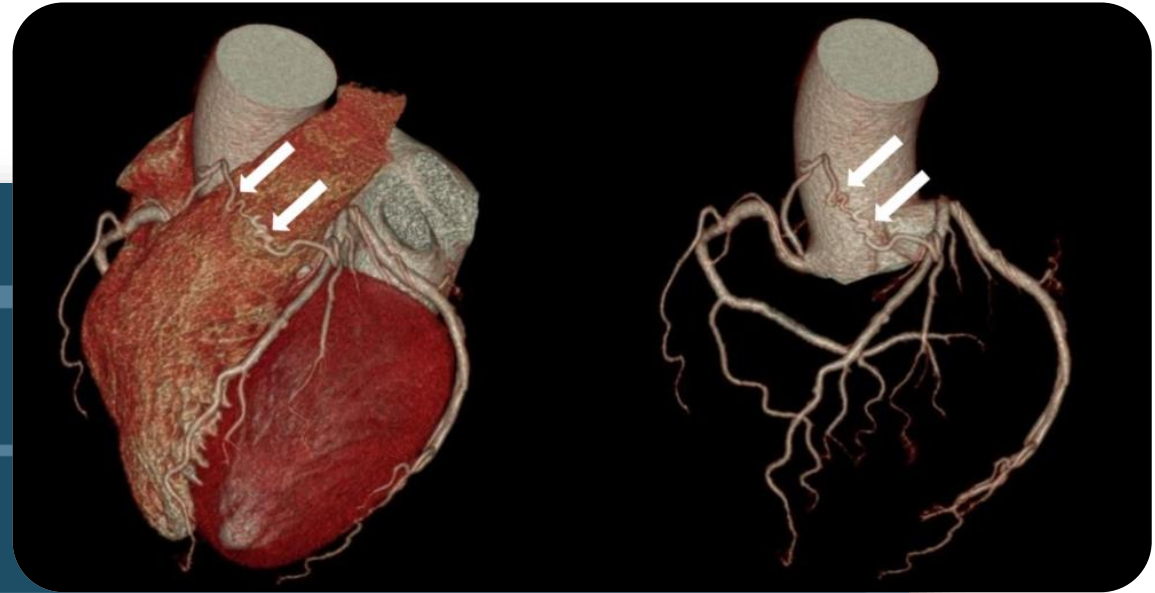
Which of the following should be assessed?

- A Distance between the annulus and femoral artery
- B Distance between the coronary arteries
- C Identification of significant stenoses in the iliac vessels**
- D Identification of significant stenoses in the popliteal vessels
- E Nothing, age precludes this treatment



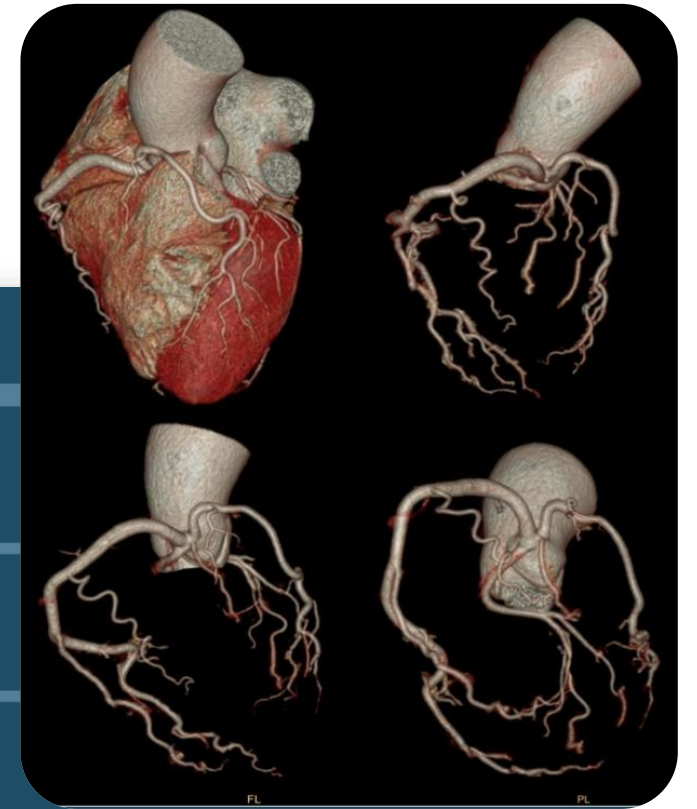
What is the structure indicated by the white arrows?

- A Ebstein's ring
- B Eisenmenger artery
- C Eustachian artery
- D Thebesian ring
- E Vieussens' ring



What is the most likely diagnosis?

- A anomalous origin of left coronary artery from the pulmonary artery
- B atresia of the left main coronary artery
- C duplication of the left circumflex coronary artery
- D single coronary artery from the left coronary sinus with retro-aortic course of circumflex coronary artery
- E single coronary artery from the right coronary sinus



Which of the following statements is most appropriate regarding coronary artery calcium scoring (CACS)?

- A | calcium score scanning should always be performed with the settings of 120kV and 150 mAs
- B | coronary artery calcium should be evaluated and reported on all noncontrast chest CT examinations
- C | coronary calcium scores >1000 can be associated with non-obstructive coronary artery disease
- D | electron beam CT uses a rotating X-ray tube for image acquisition
- E | electron beam CT uses a rotating X-ray tube for image acquisition





The best visualization of coronary vessels is usually in late diastole. Which of the following vessels is occasionally better visualized in systole?

A Left anterior descending (LAD)

B Left circumflex artery (LCX)

C Left main artery (LM)

D None of the vessels

E Right coronary artery (RCA)



A 29-year-old woman with an extracardiac Fontan circulation presents with a venous ulcer on her right leg. She is referred for a cardiac CT scan for further assessment.

Which structures should be optimally opacified?

A The ascending aorta

B The cavopulmonary circulation

C The modified Blalock-Taussig shunt

D The pulmonary veins

E The right ventricle



Low-attenuation areas may be seen within the myocardium on non-contrast CT images in patients with chronic coronary artery disease.

What do those regions typically represent?

- A Artefacts due to patient motion during the acquisition
- B Calcium deposition secondary to previous myocarditis
- C Hibernating myocardium
- D Inducible myocardial ischaemia due to critical coronary artery stenosis
- E Non-viable myocardial scar



Cardiac CT is superior to echocardiography for evaluation of which conditions in the context of infective endocarditis?

A aortic regurgitation severity

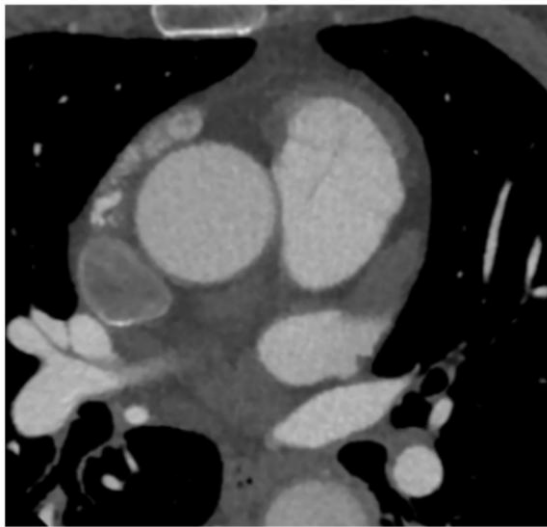
B left-sided valvular vegetations

C mitral regurgitation severity

D perivalvular abscesses and pseudoaneurysms

E right-sided valvular vegetations





A 64-year-old woman with a history of atrial fibrillation and coronary artery disease underwent a coronary CT angiogram. An axial tomographic slice is shown.

Which of the following techniques would be the best to further evaluate the abnormality shown?

- A delayed imaging
- B free breathing acquisition
- C non-contrast CT
- D prone patient position
- E re-injection of contrast medium



A patient with a history of multiple previous pulmonary emboli presents with recurrent breathlessness and pleuritic chest pain. A CT pulmonary angiogram is performed.

Which of the following is most indicative of an acute rather than chronic pulmonary embolus?

- A Intravascular bands and webs
- B Intravascular filling defect with peripheral halo of contrast opacification
- C Reduced calibre of the distal vessels
- D Right ventricular dilation
- E Systemic collateralization to the pulmonary vasculature



Compared to other imaging modalities such as MRI and PET, which of the following is unique about cardiac CT?

A High exam cost

B Limited availability

C Low spatial resolution

D Not dependent on adequate heart rate control

E Short acquisition time

