

**SNS COLLEGE OF ALLIED HEALTH SCIENCE**  
Affiliated to The Tamil Nadu Dr. M.G.R Medical University, Chennai



**DEPARTMENT OF PHYSICIAN ASSISTANT**

**COURSE NAME : CARDIAC CATHETERIZATION LABORATORY - ADVANCED**

**UNIT : 1**

**TOPICS : INTRODUCTION TO AORTIC ANGIOGRAPHY**

**FACULTY NAME : Ms. HARSHITHA S**

# Abdominal Aortic Angiography

Focuses on the abdominal portion of the aorta

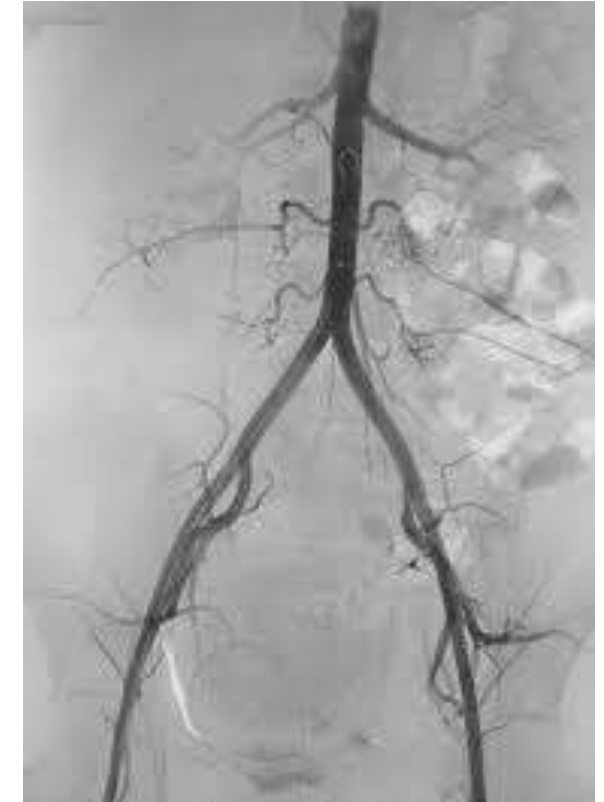
Evaluates abdominal aorta and its branches

Commonly performed for peripheral vascular disease



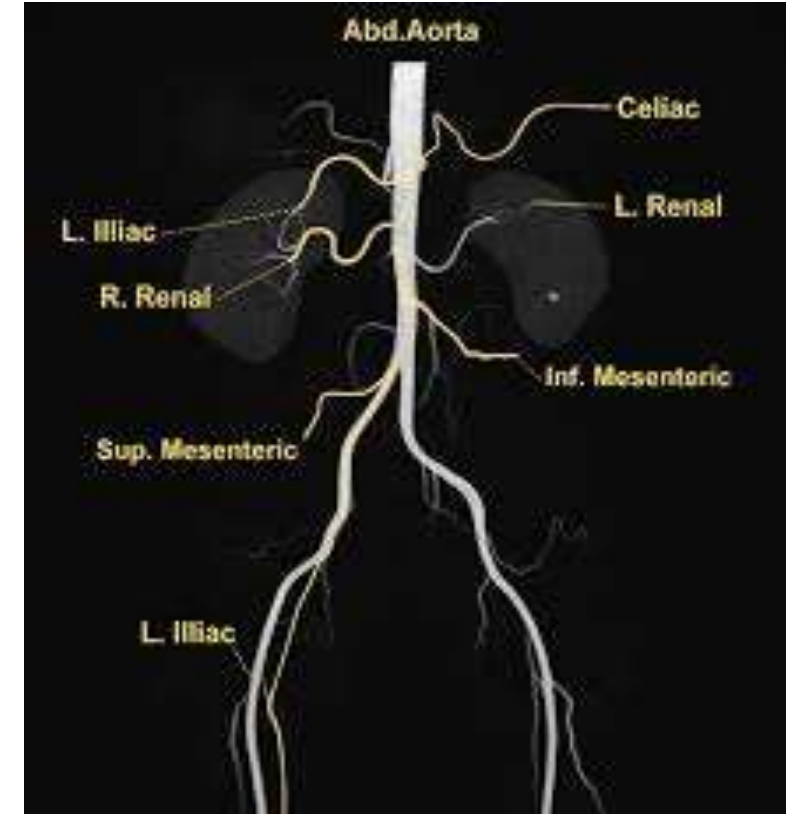
# What is Abdominal Aortic Angiography?

- Imaging of the abdominal aorta and its branches
- Contrast injected above the renal arteries
- Visualizes blood flow to abdominal organs and lower limbs



# Abdominal Aorta – Major Branches

1. Celiac trunk
2. Superior mesenteric artery (SMA)
3. Renal arteries
4. Inferior mesenteric artery (IMA)
5. Common iliac arteries



# Indications of Abdominal Aortic Angiography

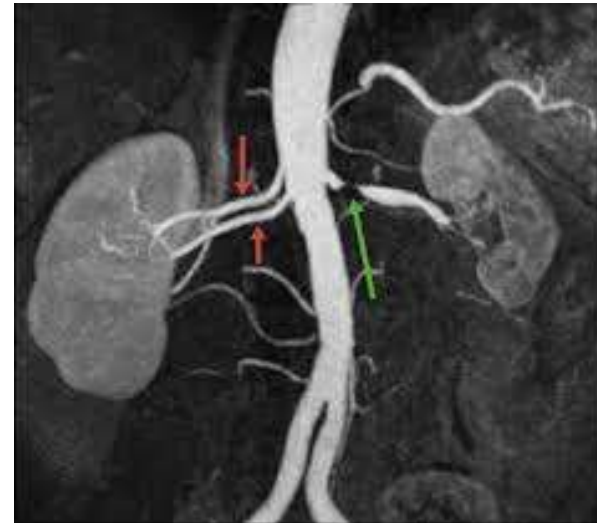
Abdominal aortic aneurysm (AAA)

Renal artery

Peripheral arterial

Mesenteric

Pre-surgical planning



Renal stenosis



Mesenteric

ischemia

# Patient Preparation

- |                             |          |         |
|-----------------------------|----------|---------|
| 1. Informed                 |          | consent |
| 2. Fasting                  | 6-8      | hours   |
| 3. Renal                    | function | tests   |
| 4. Allergy                  |          | history |
| 5. IV access and monitoring |          |         |



# Procedure Steps (Abdominal Aorta)

Femoral arterial access  
Catheter placed in abdominal aorta  
Contrast injection (controlled rate)  
Imaging using fluoroscopy/DSA  
Visualization of branches

# FINDINGS

## Normal Angiographic Appearance

1. Smooth vessel walls
2. Uniform contrast flow
3. Symmetrical branching
4. No filling defects

## Abnormal Findings

1. Aneurysm (dilatation)
2. Stenosis or occlusion
3. Irregular vessel walls
4. Delayed contrast flow
5. Collateral circulation

# Complications

Contrast-induced

Hematoma at access

Arterial



injury

Infection

Infection

Allergic reaction to contrast



contrast allergy



Hematoma

# Safety Measures

- |  |          |            |
|--|----------|------------|
| 1. Proper                              | patient  | screening  |
| 2. Minimal                             | contrast | dose       |
| 3. Strict                              | aseptic  | technique  |
| 4. Continuous                          |          | monitoring |
| 5. Adequate post-procedure observation |          |            |

# References

- <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/abdominal-angiogram>
- <https://www.sciencedirect.com/topics/medicine-and-dentistry/abdominal-angiography>

# THANKYOU