

## Complete Summary

---

### GUIDELINE TITLE

Diagnostic coronary angiography.

### BIBLIOGRAPHIC SOURCE(S)

Finnish Medical Society Duodecim. Diagnostic coronary angiography. In: EBM Guidelines. Evidence-Based Medicine [Internet]. Helsinki, Finland: Wiley Interscience. John Wiley & Sons; 2008 Apr 30 [Various].

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Finnish Medical Society Duodecim. Diagnostic coronary angiography. In: EBM Guidelines. Evidence-Based Medicine [Internet]. Helsinki, Finland: Wiley Interscience. John Wiley & Sons; 2006 Jan 25 [Various]. [18 references]

## COMPLETE SUMMARY CONTENT

SCOPE  
 METHODOLOGY - including Rating Scheme and Cost Analysis  
 RECOMMENDATIONS  
 EVIDENCE SUPPORTING THE RECOMMENDATIONS  
 BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS  
 CONTRAINDICATIONS  
 IMPLEMENTATION OF THE GUIDELINE  
 INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT  
 CATEGORIES  
 IDENTIFYING INFORMATION AND AVAILABILITY  
 DISCLAIMER

## SCOPE

### DISEASE/CONDITION(S)

Coronary heart disease

### GUIDELINE CATEGORY

Diagnosis  
 Evaluation

### CLINICAL SPECIALTY

Cardiology  
Family Practice  
Internal Medicine

## **INTENDED USERS**

Health Care Providers  
Physicians

## **GUIDELINE OBJECTIVE(S)**

Evidence-Based Medicine Guidelines collects, summarizes, and updates the core clinical knowledge essential in general practice. The guidelines also describe the scientific evidence underlying the given recommendations.

## **TARGET POPULATION**

Patients with coronary heart disease

## **INTERVENTIONS AND PRACTICES CONSIDERED**

Coronary angiography

## **MAJOR OUTCOMES CONSIDERED**

Not stated

# **METHODOLOGY**

## **METHODS USED TO COLLECT/SELECT EVIDENCE**

Hand-searches of Published Literature (Primary Sources)  
Hand-searches of Published Literature (Secondary Sources)  
Searches of Electronic Databases

## **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

The evidence reviewed was collected from the Cochrane database of systematic reviews and the database of abstracts of reviews of effectiveness (DARE). In addition, the Cochrane Library and medical journals were searched specifically for original publications.

## **NUMBER OF SOURCE DOCUMENTS**

Not stated

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Weighting According to a Rating Scheme (Scheme Given)

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

### **Classification of the Quality of Evidence**

<b>Code</b>	<b>Quality of Evidence</b>	<b>Definition</b>
<b>A</b>	<b>High</b>	Further research is very unlikely to change our confidence in the estimate of effect. <ul style="list-style-type: none"><li>• Several high-quality studies with consistent results</li><li>• In special cases: one large, high-quality multi-centre trial</li></ul>
<b>B</b>	<b>Moderate</b>	Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate. <ul style="list-style-type: none"><li>• One high-quality study</li><li>• Several studies with some limitations</li></ul>
<b>C</b>	<b>Low</b>	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate. <ul style="list-style-type: none"><li>• One or more studies with severe limitations</li></ul>
<b>D</b>	<b>Very Low</b>	Any estimate of effect is very uncertain. <ul style="list-style-type: none"><li>• Expert opinion</li><li>• No direct research evidence</li><li>• One or more studies with very severe limitations</li></ul>

GRADE (Grading of Recommendations Assessment, Development and Evaluation) Working Group 2007 (modified by the EBM Guidelines Editorial Team).

## **METHODS USED TO ANALYZE THE EVIDENCE**

Review of Published Meta-Analyses  
Systematic Review

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Not stated

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Not stated

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

## **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## **METHOD OF GUIDELINE VALIDATION**

Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

Not stated

# **RECOMMENDATIONS**

## **MAJOR RECOMMENDATIONS**

### **Principles**

- Coronary angiography is used to investigate the anatomy of the coronary arteries and to assess the number, location and severity of possible coronary stenoses.
- In the case that a significant stenosis is found it is possible at the same time to perform a therapeutic intervention (i.e., balloon angioplasty and, if needed, insertion of a metal mesh [stent] to secure the patency of the vessel).

### **Indications**

#### **Angina Pectoris or Other Symptom Triggered by Exertion**

- Symptoms that are constant or disturb everyday life despite optimal medication in patients with probable coronary heart disease or with exacerbating symptoms of an earlier established disease
- ST segment depression >1.5 to 2 mm appearing at low workload and/or low rate-pressure product in exercise stress test (see the Finnish Medical Society Duodecim guideline "Exercise Stress Test") suggesting a significant myocardial ischaemia
- Diagnostic work-up of unexplained chest pain when exercise stress test does not establish the diagnosis and the probability of coronary heart disease is increased
- Significant perfusion defect in myocardial perfusion scan, or findings in exercise echocardiography indicating myocardial ischaemia

#### **Acute Chest Pain**

- ST elevation myocardial infarction (STEMI, [see the Finnish Medical Society Duodecim guideline "Thrombolytic Therapy and Balloon Angioplasty in Acute ST Elevation Myocardial Infarction]): coronary angiography should be performed as soon as possible; thrombolytic therapy is an alternative
- Non-ST segment elevation myocardial infarction (NSTEMI) and unstable angina pectoris: if signs of high risk are present, coronary angiography is performed according to the clinical situation, nonetheless within 24 to 48 hours (see the Finnish Medical Society guidelines "Acute Coronary Syndromes: Unstable Angina Pectoris and Non-ST Segment Elevation Myocardial Infarction [NSTEMI]" and "Coronary Heart Disease [CHD]: Symptoms, Diagnosis and Treatment").

### Other Indications

- Heart failure of unknown aetiology: search for the cause
- As further investigation in a patient surviving resuscitation after ventricular fibrillation
- In association with invasive assessment of a valvular heart disease
- Assessment prior to heart transplantation

### Contraindications

- Relative contraindications include
  - Severe infection, sepsis
  - Recent neurological event
  - Significant haemorrhagic diathesis
  - Severe renal failure
  - Allergy to contrast media

### Related Resources

Refer to the original guideline document for related evidence, including Cochrane reviews and other evidence summaries.

### Definitions:

### Classification of the Quality of Evidence

Code	Quality of Evidence	Definition
<b>A</b>	<b>High</b>	Further research is very unlikely to change our confidence in the estimate of effect. <ul style="list-style-type: none"> <li>• Several high-quality studies with consistent results</li> <li>• In special cases: one large, high-quality multi-centre trial</li> </ul>
<b>B</b>	<b>Moderate</b>	Further research is likely to have an important impact on confidence in the estimate of effect and may change the

Code	Quality of Evidence	Definition
		<p>estimate.</p> <ul style="list-style-type: none"> <li>• One high-quality study</li> <li>• Several studies with some limitations</li> </ul>
<b>C</b>	<b>Low</b>	<p>Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.</p> <ul style="list-style-type: none"> <li>• One or more studies with severe limitations</li> </ul>
<b>D</b>	<b>Very Low</b>	<p>Any estimate of effect is very uncertain.</p> <ul style="list-style-type: none"> <li>• Expert opinion</li> <li>• No direct research evidence</li> <li>• One or more studies with very severe limitations</li> </ul>

GRADE (Grading of Recommendations Assessment, Development and Evaluation) Working Group 2007 (modified by the EBM Guidelines Editorial Team).

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Concise summaries of scientific evidence attached to the individual guidelines are the unique feature of the Evidence-Based Medicine Guidelines. The evidence summaries allow the clinician to judge how well-founded the treatment recommendations are.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Appropriate use of coronary angiography

### POTENTIAL HARMS

Not stated

## CONTRAINDICATIONS

### CONTRAINDICATIONS

Relative contraindications to diagnostic coronary angiography include:

- Severe infection, sepsis
- Recent neurological event
- Significant haemorrhagic diathesis
- Severe renal failure
- Allergy to contrast media

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better

### IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Finnish Medical Society Duodecim. Diagnostic coronary angiography. In: EBM Guidelines. Evidence-Based Medicine [Internet]. Helsinki, Finland: Wiley Interscience. John Wiley & Sons; 2008 Apr 30 [Various].

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2001 Apr 30 (revised 2008 Apr 30)

### GUIDELINE DEVELOPER(S)

Finnish Medical Society Duodecim - Professional Association

**SOURCE(S) OF FUNDING**

Finnish Medical Society Duodecim

**GUIDELINE COMMITTEE**

Editorial Team of EBM Guidelines

**COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

*Primary Authors:* Editors

**FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

**GUIDELINE STATUS**

This is the current release of the guideline.

This guideline updates a previous version: Finnish Medical Society Duodecim. Diagnostic coronary angiography. In: EBM Guidelines. Evidence-Based Medicine [Internet]. Helsinki, Finland: Wiley Interscience. John Wiley & Sons; 2006 Jan 25 [Various]. [18 references]

**GUIDELINE AVAILABILITY**

This guideline is included in "EBM Guidelines. Evidence-Based Medicine" available from Duodecim Medical Publications, Ltd, PO Box 713, 00101 Helsinki, Finland; e-mail: [info@ebm-guidelines.com](mailto:info@ebm-guidelines.com); Web site: [www.ebm-guidelines.com](http://www.ebm-guidelines.com).

**AVAILABILITY OF COMPANION DOCUMENTS**

None available

**PATIENT RESOURCES**

None available

**NGC STATUS**

This summary was completed by ECRI on August 28, 2001. The information was verified by the guideline developer as of October 26, 2001. This summary was updated by ECRI on December 9, 2002. This summary was verified by the developer on April 2, 2003. This summary was updated by ECRI on February 21, 2005, and March 15, 2006. This summary was updated by ECRI Institute on September 30, 2008.

**COPYRIGHT STATEMENT**



This NGC summary is based on the original guideline, which is subject to the guideline developer's copyright restrictions.

## DISCLAIMER

### NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx>.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

© 1998-2008 National Guideline Clearinghouse

Date Modified: 11/3/2008

