



www.esaunggul.ac.id

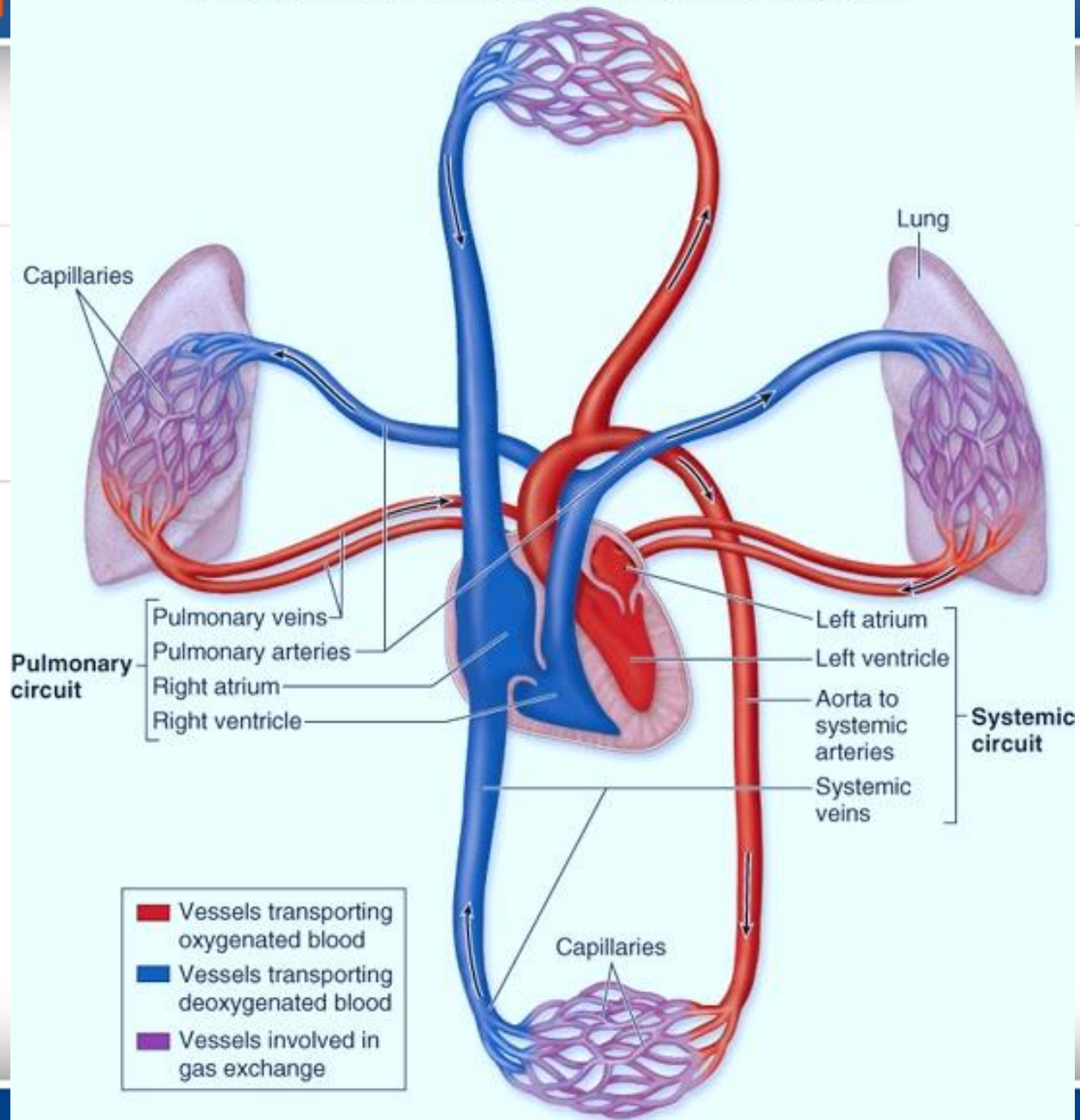
**DIETETIK PENYAKIT TIDAK MENULAR
DIET PENYAKIT JANTUNG DAN PEMBULUH
DARAH
MERTIEN SA'PANG
ILMU GIZI / FAKULTAS ILMU KESEHATAN**

KEMAMPUAN AKHIR YANG DIHARAPKAN

- Mampu menjelaskan definisi dan patofisiologi penyakit jantung dan stroke
- Mampu menentukan terapi diet yang tepat untuk penderita penyakit jantung dan stroke

Sumber:

- Krause's, Kathleen Mahan, Sylvia Escoot Stump. Food, Nutrition, & Diet Therapy. edisi ke 14, Saunders, 2017
- Sunita Almatsier, Penuntun Diet, PT. Gramedia Pustaka Utama, 2005
- http://www.who.int/cardiovascular_diseases/en/cvd_atlas_06_lipids.pdf?ua=1



Coronary Heart Disease (CHD) or Coronary Artery Disease (CAD)

- Disease involving the network of blood vessels surrounding and serving the heart
- Manifested in clinical end points of myocardial infarction (MI) and sudden death

Cardiovascular Disease (CVD)

- CVD has been the leading cause of death in the developed country for every year since 1900
- CVD kills almost as many people yearly as the next seven causes of death combined.



WORKING TOGETHER TO PREVENT
ONE MILLION
HEART ATTACKS AND STROKES

1 of **3**
deaths is caused by
heart disease and stroke

Health care costs
for heart attack
and stroke:
\$312.6
BILLION

Leading cause of
PREVENTABLE
DEATH
in people 40-65
years of age

2 MILLION+
heart attacks and
strokes each year

To prevent 1 million heart attacks and strokes, health care professionals and public health workers should do what we know works:

FOCUS ON THE ABCS

- A**spirin when appropriate
- B**lood pressure control
- C**holesterol management
- S**moking cessation

USE HEALTH IT

Use **electronic** health records and other health IT to identify patients who need support to improve their ABCS and then track their progress over time.

USE TEAM-BASED CARE

Use clinical innovations, including:

- ♥ Use everyone who interacts with patients to the top of their skills and license
- ♥ Self-measured blood pressure monitoring with clinical support
- ♥ Reward and recognize excellence in the ABCS

By doing what we know works, health care professionals, health care systems, and public health organizations can help prevent 1,000,000 heart attacks and strokes and **meet these goals by 2017:**

47% to 70% increase in aspirin use for secondary prevention	46% to 70% increase in blood pressure control	33% to 70% increase in cholesterol management	23% to 70% increase in help for those who want to quit smoking	20% reduction in sodium consumption	50% reduction in trans fat consumption

Prevalence and Incidence

* For more information on effectiveness of team-based care, visit:
www.thecommunityguide.org/cvd/teambasedcare.html
www.cdc.gov/media/dpk/2013/dpk_13_in_2013.html
www.millionhearts.hhs.gov

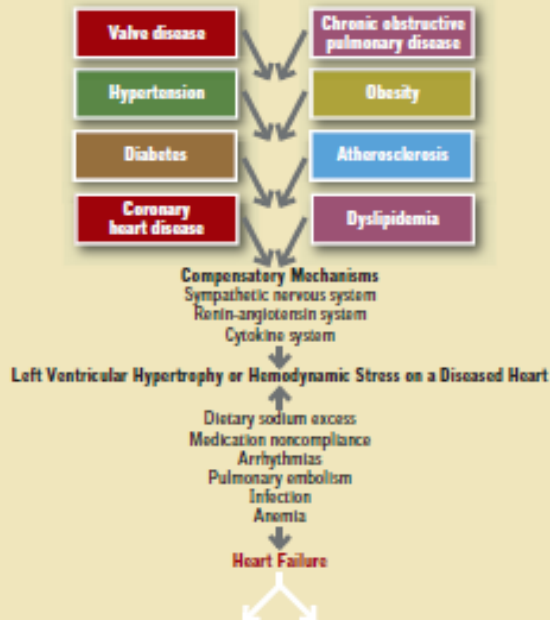


U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

PATHOPHYSIOLOGY AND CARE MANAGEMENT ALGORITHM

Heart Failure

ETIOLOGY



PATHOPHYSIOLOGY

Clinical Findings

- Shortness of breath
- Fatigue
- Fluid retention
- Peripheral vasoconstriction
- Elevated B-natriuretic peptide
- Mental confusion
- Memory loss
- Anxiety
- Insomnia
- Syncope and headache
- Dry cough

Nutrition Assessment

- Anorexia
- Nausea, abdominal pain and feeling of fullness
- Constipation
- Malabsorption
- Malnutrition
- Cardiac cachexia
- Hypomagnesemia
- Hyponatremia

MANAGEMENT

Medical Management

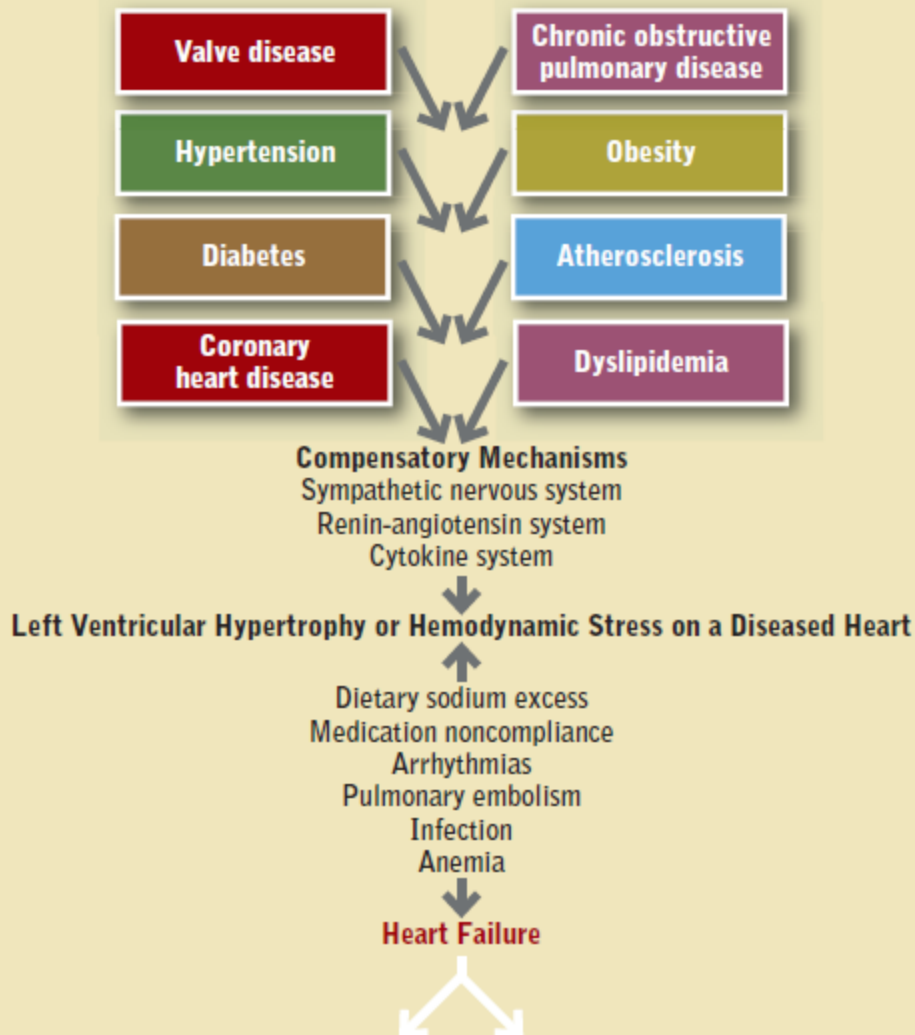
- ACE Inhibitors
- Angiotensin receptor blockers
- Aldosterone blockers
- β -blockers
- Digoxin
- Vasodilators
- Implantable defibrillator
- Heart transplants

Nutrition Management

- Diet low in saturated fat, trans fat
- Restricted sodium diet— <3 gm/day
- Increased use of whole grains, fruits, vegetables
- Limit fluid to 2 L per day
- Lose to or maintain appropriate weight
- Magnesium supplementation
- Thiamin supplementation
- Increase physical activity as tolerated
- Avoid tobacco
- Avoid alcohol

Heart Failure

ETIOLOGY



PATHOPHYSIOLOGY

Clinical Findings

- Shortness of breath
- Fatigue
- Fluid retention
- Peripheral vasoconstriction
- Elevated B-natriuretic peptide
- Mental confusion
- Memory loss
- Anxiety
- Insomnia
- Syncope and headache
- Dry cough

Nutrition Assessment

- Anorexia
- Nausea, abdominal pain and feeling of fullness
- Constipation
- Malabsorption
- Malnutrition
- Cardiac cachexia
- Hypomagnesemia
- Hyponatremia



MANAGEMENT

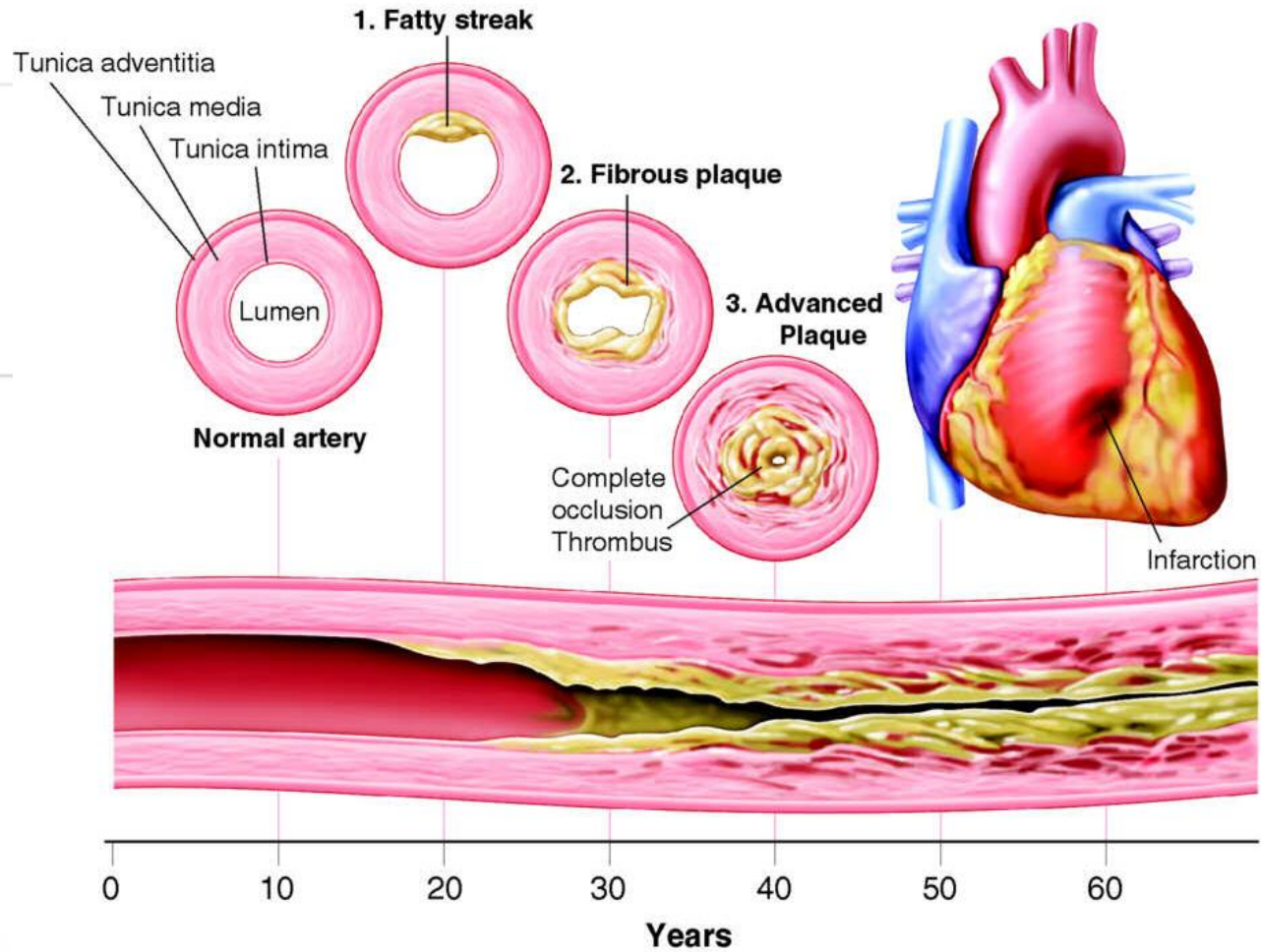
Medical Management

- ACE inhibitors
- Angiotensin receptor blockers
- Aldosterone blockers
- β -blockers
- Digoxin
- Vasodilators
- Implantable defibrillator
- Heart transplant

Nutrition Management

- Diet low in saturated fat, *trans* fat
- Restricted sodium diet— <3 gm/day
- Increased use of whole grains, fruits, vegetables
- Limit fluid to 2 L per day
- Lose to or maintain appropriate weight
- Magnesium supplementation
- Thiamin supplementation
- Increase physical activity as tolerated
- Avoid tobacco
- Avoid alcohol

Natural Progression of Atherosclerosis

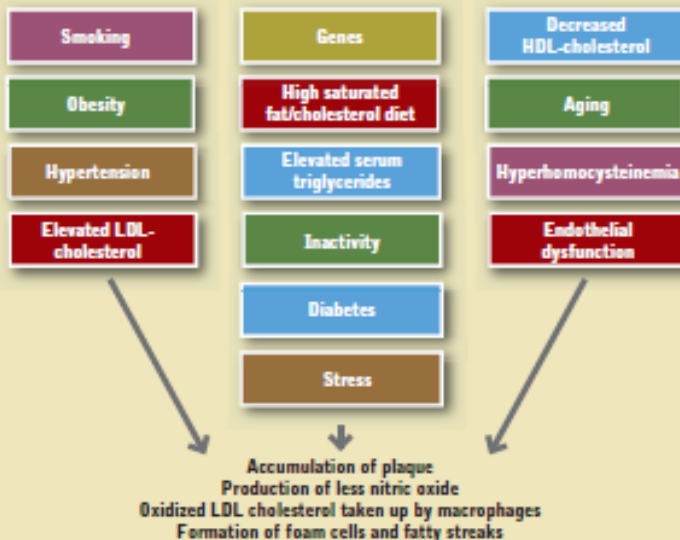


(From Harkreader H. Fundamentals. Philadelphia: W.B. Saunders, 2000)

PATHOPHYSIOLOGY AND CARE MANAGEMENT ALGORITHM

Atherosclerosis

ETIOLOGY



PATHOPHYSIOLOGY

Clinical Findings

- Elevated LDL cholesterol
- Elevated serum triglycerides
- Elevated C-reactive protein
- Low HDL-cholesterol

Nutrition Assessment

- BMI evaluation
- Waist circumference; waist to hip ratio (WHR)
- Dietary assessment for: SFA, trans-fatty acids, ω-3 fatty acids, fiber, sodium, alcohol, sugar and phytonutrients

MANAGEMENT

Medical Management

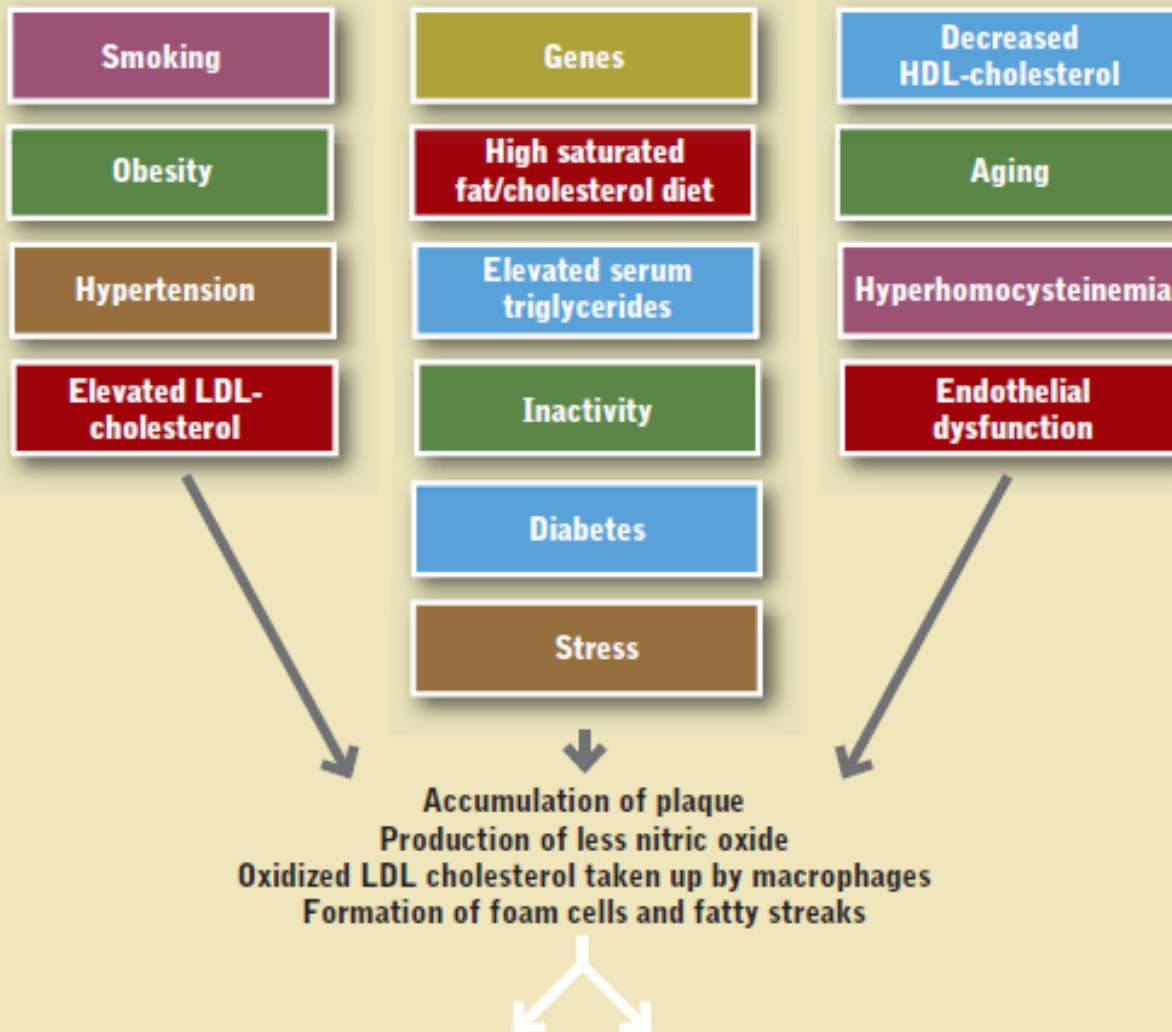
- Lifestyle change
- HMG CoA reductase inhibitors (statins)
- Triglyceride-lowering medication
- Blood pressure—lowering medication
- Medication for glucose management
- Percutaneous coronary intervention (PCI)
 - Balloon
 - Stent
- Coronary artery bypass graft (CABG)
- Antiplatelet Therapy

Nutrition Management

- DASH dietary pattern
- Mediterranean diet pattern
- Weight reduction if needed
- Increase dietary fiber to 25–30 g/day or more
- Add ω-3 fats from food sources
- Add fruits and vegetables
- CoQ10 for those on statin drugs

Atherosclerosis

ETIOLOGY



PATHOPHYSIOLOGY

Clinical Findings

- Elevated LDL cholesterol
- Elevated serum triglycerides
- Elevated C-reactive protein
- Low HDL-cholesterol

Nutrition Assessment

- BMI evaluation
- Waist circumference; waist to hip ratio (WHR)
- Dietary assessment for:
SFA, *trans*-fatty acids, ω -3 fatty acids, fiber, sodium, alcohol, sugar and phytonutrients



MANAGEMENT

Medical Management

- Lifestyle change
- HMG CoA reductase inhibitors (statins)
- Triglyceride-lowering medication
- Blood pressure—lowering medication
- Medication for glucose management
- Percutaneous coronary Intervention (PCI)
 - Balloon
 - Stent
- Coronary artery bypass graft (CABG)
- Antiplatelet Therapy

Nutrition Management

- DASH dietary pattern
- Mediterranean diet pattern
- Weight reduction if needed
- Increase dietary fiber to 25–30 g/day or more
- Add ω -3 fats from food sources
- Add fruits and vegetables
- CoQ10 for those on statin drugs



DIET PENYAKIT JANTUNG

Gambaran Umum

- Penyakit jantung terjadi akibat ketidakmampuan jantung untuk melakukan fungsinya secara Normal
- Sirkulasi darah yang tidak normal menyebabkan sesak napas (dyspnea), rasa lelah dan rasa sakit di daerah jantung.
- Berkurangnya aliran darah dapat mengakibatkan kelainan fungsi ginjal, hati, otak serta tekanan darah.

Tujuan Diet

- Memberikan makanan sesuai kebutuhan tanpa memperberat kerja jantung
- Menurunkan BB apabila terlalu gemuk
- Mencegah atau menghilangkan penimbunan garam atau air



Syarat Diet

- Energi cukup
- Protein cukup $\rightarrow 0,8\text{g/kgBB}$
- Lemak sedang, 25-30% dari keb energi total
 - 10% lemak jenuh
 - 10-15% lemak tidak jenuh
- Kolesterol rendah terutama apabila dislipidemia



Lanjutan....

- Vitamin dan mineral cukup. Hindari penggunaan suplemen kalium, kalsium dan magnesium jika tdk dibutuhkan
- Garam rendah, 2-3 g/hari, jika disertai hipertensi atau edema
- Makanan mudah di cerna dan tidak menimbulkan gas



Lanjutan....

- Serat cukup utk menghindari konstipasi
- Cairan cukup, ± 2 L/Hari sesuai kebutuhan
- Bentuk makanan sesuai kemampuan pasien, diberikan dalam porsi kecil
- Dpt diberikan makanan enteral, parenteral atau suplemen apabila keb. Tdk dpt dipenuhi



Jenis Diet dan Indikasi Pemberian

Diet Jantung I

Diberikan pada pasien penyakit jantung akut spt: *Myocard Infarct*

Bentuk makanan cair, 1-1,5 Lcairan/hari

Sebaiknya diberikan hanya 1-3 hari

Diet Jantung II

Diberikan perpindahan dari DJ I atau setelah fase akut

Bentuk makanan Saring atau lunak

Diet Jantung III

Diberikan perpindahan dari DJ II atau kpd pasien yang kondisinya tdk terlalu berat

Bentuk makanan lunak/Biasa

Diet Jantung IV

Diberikan perpindahan dari DJ 1 atau pasien jantung keadaan ringan

Bentuk makanan biasa

Apabila disertai dengan hipertensi dan/atau edema diberikan diet rendah garam



TAKE ACTION. **LIVE HEALTHY!**

REGULAR EXERCISE IS A GREAT WAY TO START



Check. Change. Control.
CHOLESTEROL™

Terima Kasih....