

Dyslipidaemias

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RISK FACTORS of CHD

CAUSAL	CONDITIONAL	PREDISPOSING
<u>Increase level of LDL-cholesterol</u>	Increase in fasting glucose level Increase in triglyceride level ApoB, small LDL particules Increase in homocystein Trombogenic factors (Lp (a), fibrinogen, PAI-1, f VII)	Male Etnical origin Social factors Overweight, especially abdominal obesity Low physical activity Menopausa Diet?
Hypertension		
Smoking		
Diabetes mellitus		
Lower HDL cholesterol		
Aging	C-reactive protein Infection?	

Increase level of LDL-cholesterol

Hypertension

Smoking

Diabetes mellitus

Lower HDL cholesterol

Aging

Increase in fasting glucose level
Increase in triglyceride level
ApoB, small LDL particules
Increase in homocystein
Trombogenic factors (Lp (a), fibrinogen, PAI-1, f VII)
C-reactive protein
Infection?

Male
Etnical origin
Social factors
Overweight, especially abdominal obesity
Low physical activity
Menopausa
Diet?

Goals in hypolipidemic treatment:

- 1) lower LDL cholesterol (?)
- 2) stabilization of endotelial (dys)funtion
- 3) Stabilizaton of atherosclerotic plaques
- 4) Lower cardiovascular mortality
- 5) lower total mortality (statins, niacin)

Secondary DLP

- **Hypothyreosis**
- **Diabetes mellitus type 1 and 2**
- **Alcohol**
- **Renal disorders**
- **Liver disorders**

Primary DLP

- Higher cholesterol level (familiar hypercholesterolemia – heterozygots)
- Higher triglycerids (deficit of LPL)
- Higher cholesterol and triglycerids level (dysbetalipoproteinemia, familiar combinationDLP)
- Lower HDL cholesterol

Recommende treatment goals

	Primary prevention	Secondary prevention (DM)
Total cholesterol (mmol/L)	< 5.2	< 5.0 (4.5..)
Triglycerids (mmol/L)	< 2.3 (5.0)	< 2.0 (1.7)
HDL cholesterol (mmol/L)	>1.0 (0.9)	>1.0 (0.9)
LDL cholesterol	< 4.0	< 2.5

Warning levels

Total cholesterol (mmol/L)	> 8.0	Genetical disorder, hypothyreosis
Triglycerids (mmol/L)	> 11.0	Risk of pankreatitis
HDL cholesterol (mmol/L)	< 0.7	Genetical disorder
LDL cholesterol (mmol/L)	?	?

Dyslipidemia treatment

1) Diet

2) Farmakoterapy

3) Liver transplant

4) Gen therapy

Hypolipemics

- **Sequestrants of bile acids**
- **fibrates**
- **Inhibitors of 3-methyl 3 glutaryl CoA reduktase (Statins)**
- **Nikotinamid (Niacin)**

Diet – 3
month
(?)

Statin
Fibrate

In 4-6
weeks
Lipids,
ALT,
GMT, CK

In 2-3
month
Lipids,
ALT,
GMT,
CK