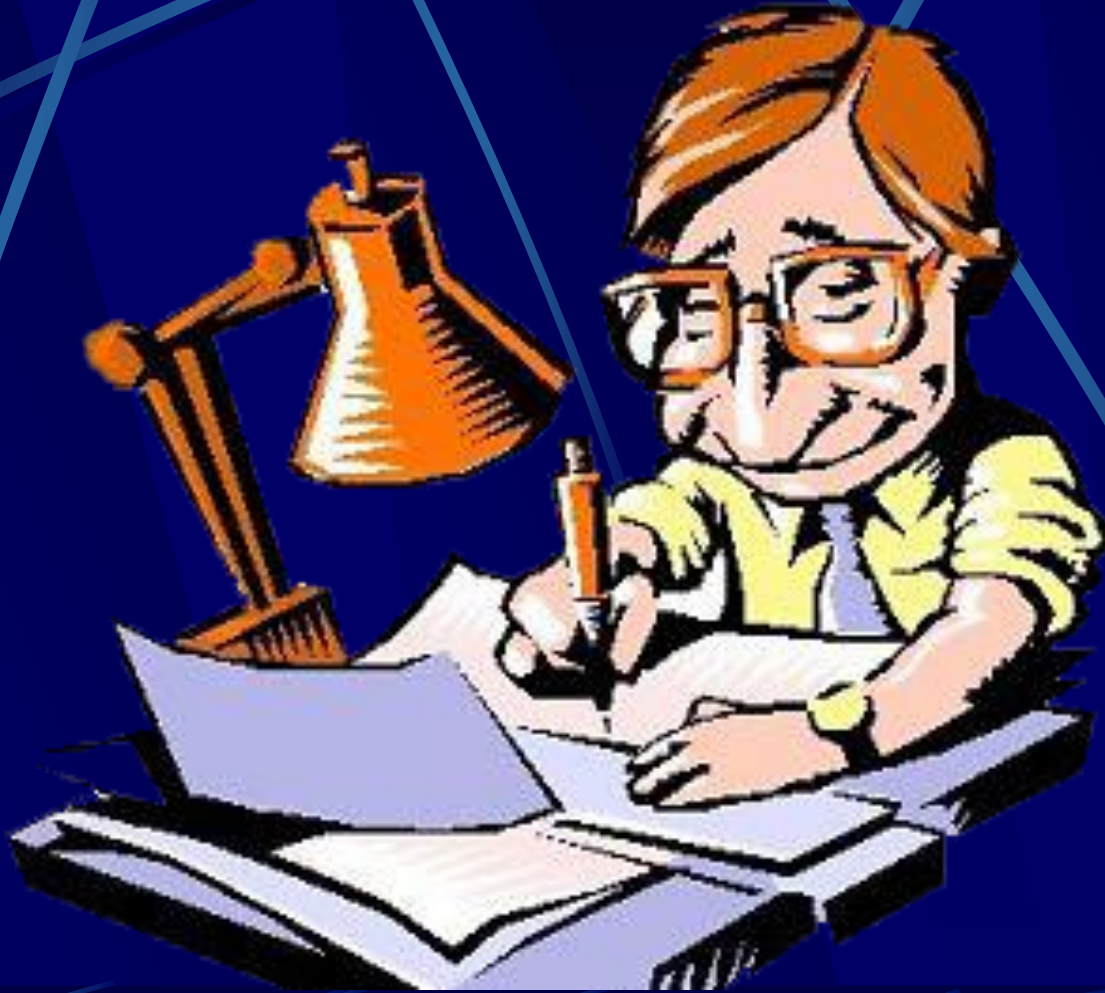


# **Dr. Sant Chaiyodsilp**

- **FCTS, FRCST, FRCFMT**
- **Senior CVT Registrar, GLH, New Zealand**
- **Visiting Surgeon, BWH, Harvard Boston, U.S.A.**
- **Cardia surgeon**
- **Family physician**
- **President Resuscitation Foundation of Thailand**
- **Chief Wellness Coach, (Mega)**



# Literature Review



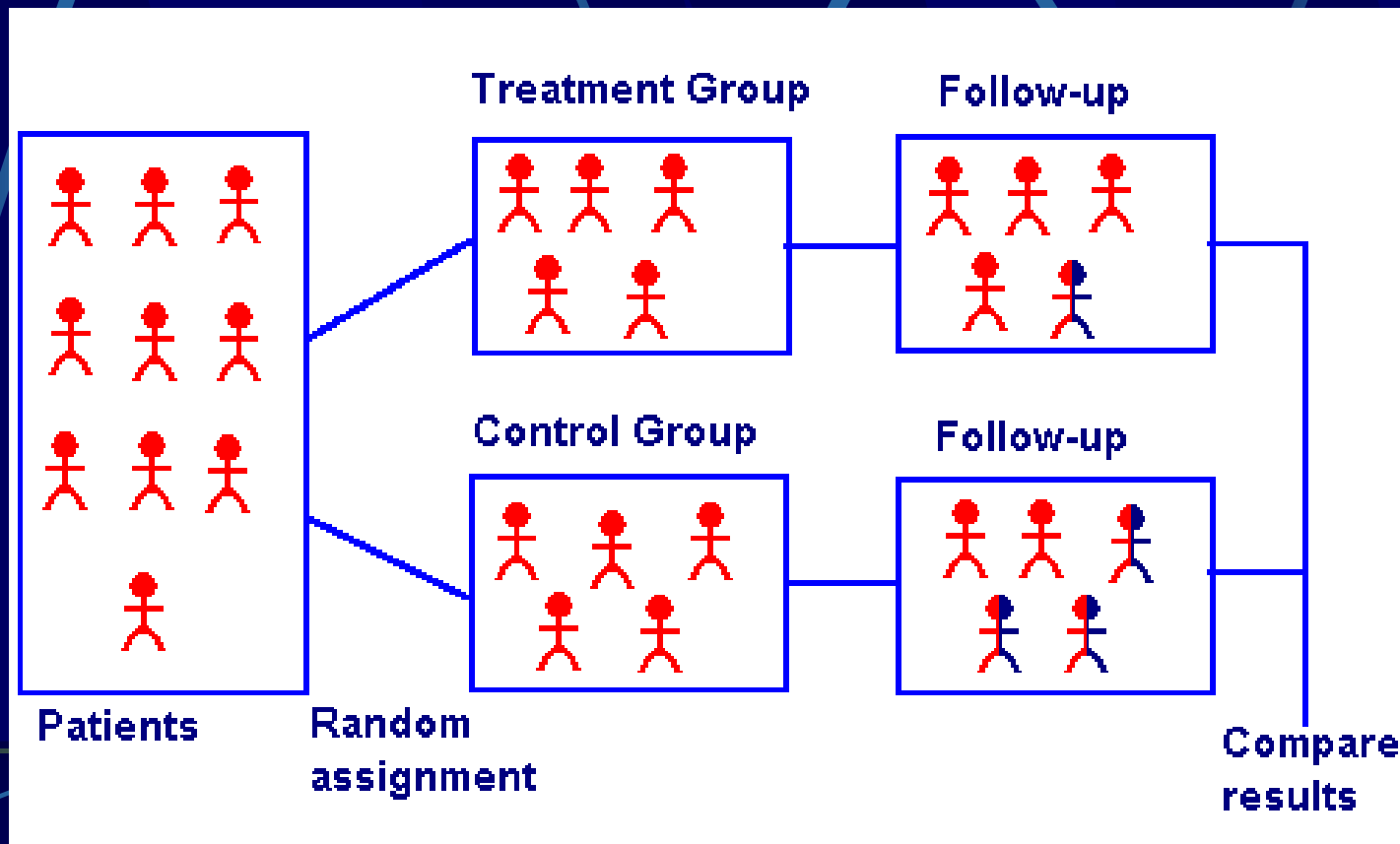
# Level of Evidence

## LOE

- Level 1. Randomized controlled trial - RCT
- Level 2. Prospective cohort study
- Level 3. Retrospective case control study
- Level 4. Case series report
- Level 5. Animal model, Laboratory model
- Not evidence Expert's opinion, Anecdote

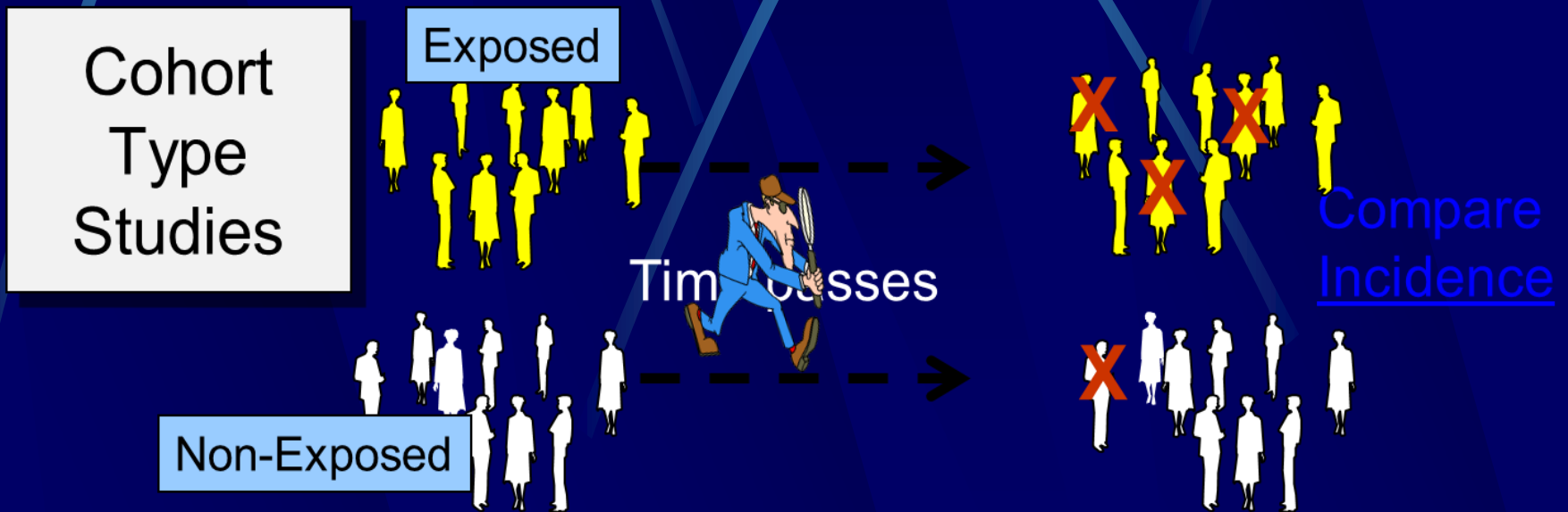
# Level 1. (Reliable)

Randomized Clinical Trial - RCT)



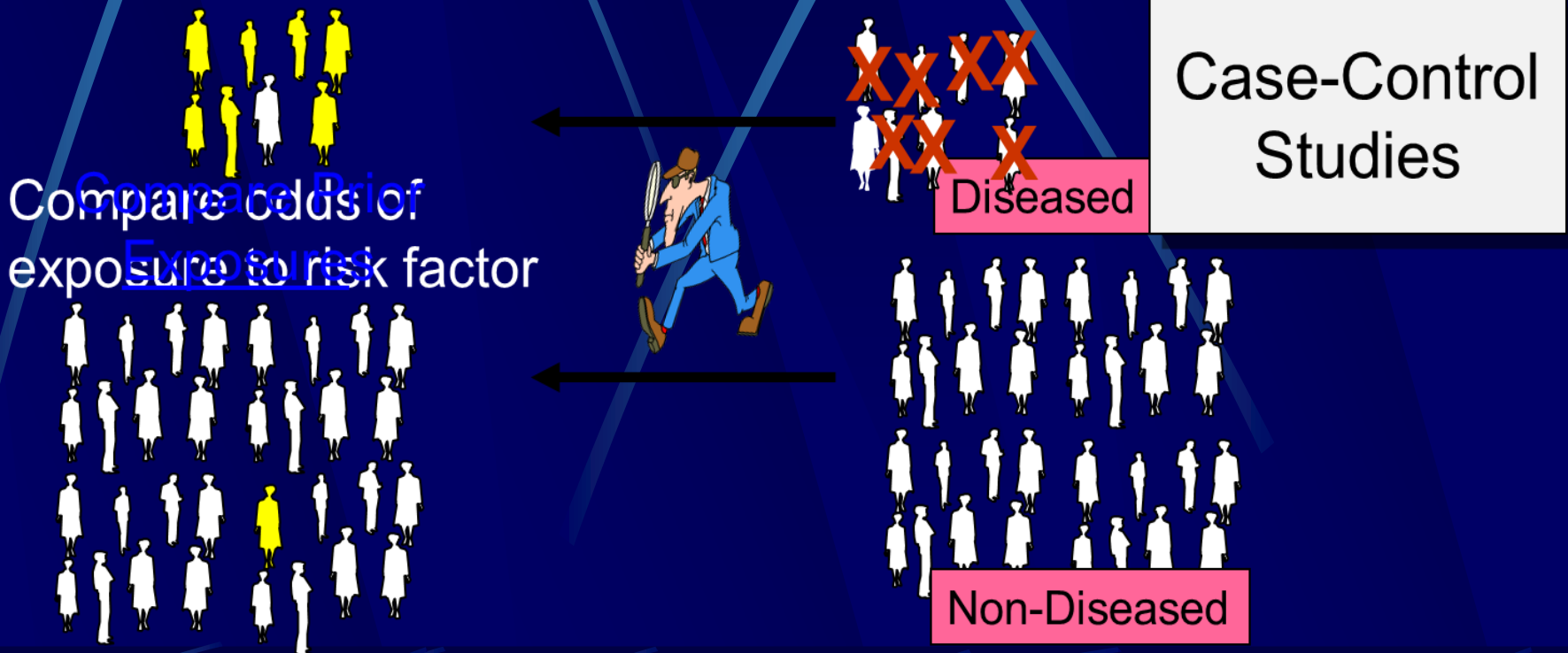
# Level 2.

## Prospective Cohort Study



# Level 3.

## Retrospective Case Control Study





# *Level 4.*

Case Series  
Cross Section Study



# *Level 5.*

- Animal model,
- Laboratory model
- Extrapolation





# What is not evidence

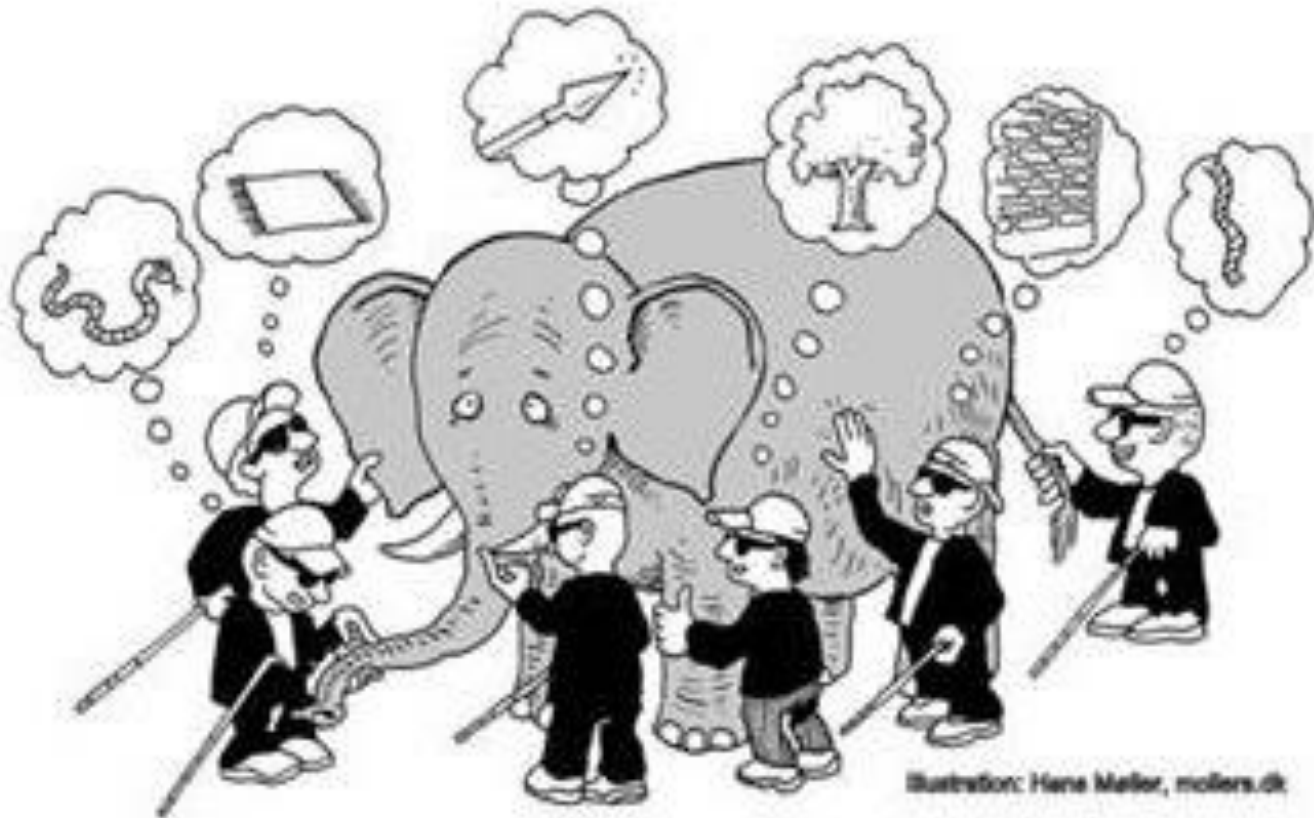
- Expert Opinion
- Anecdote, testimonial



# Quality of evidence

1. What question the research intend to answer?
2. Does the end point answer such question?
3. Is the methodology good?
  - Eliminate confound factors
  - Length of follow up period
  - Statistic tool used
4. How significant is the difference?  
Is the research applicable to clinical use?

# Big picture estimation



# My conclusion 1

- 1. The future with modern treatment is doomed.

# EuroAspire Study

- Study heart patients
- 13,935 patients
- in 76 hospital
- 22 countries
- total time 12 yrs



# EroAspire Results

Index	1996	2000	2007
<b>Obesity (BMI&gt;30)</b>	25%	33%	38%
<b>Waist Circ.&gt;102 cm.</b>	42%	53%	55%
<b>Diabetes cases</b>	17%	20%	28%
<b>Smoking</b>	20%	21%	18%
<b>Hypertension cases</b>	32%	43%	56%

*Eur J Cardiovasc Prev Rehabil. 2009 Apr;16(2):121-37.*



# My conclusion 2

Invasive treatment (balloon and bypass) is useless except in emergency or very severe symptom (class 4) cases.

# OAT Trial

2,166 acute MI 24 hrs after heart attack randomized into 2 groups

- Group1: Medical Rx alone
- Group2: Balloon with stent

Both have the same outcomes

# Courage Trial

2,287 chest pain patients class I - III randomized into 2 groups

- Group1: Medical Rx alone
- Group2: Balloon with stent

Both have the same outcomes

# My conclusion 3

Reversal of disease with life style modification.

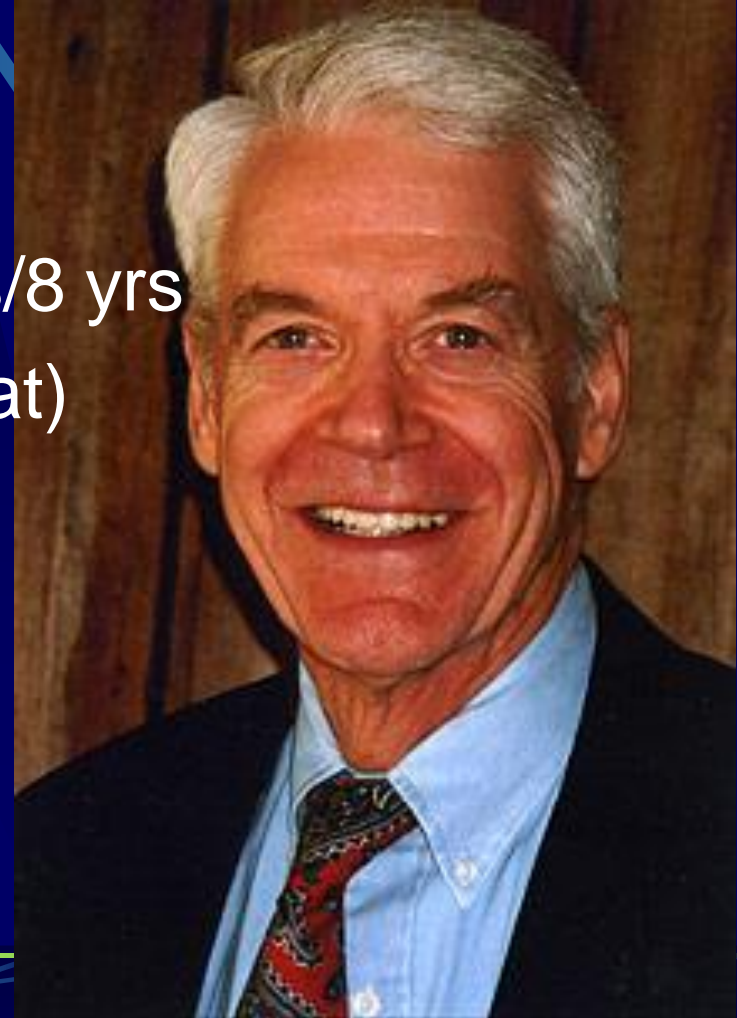
1. Low fat vegan diet
2. Exercise
3. Stress management
4. Group+Social support

# Esselstyn Study

1999 (12 yrs study)

- 18 patients, 48 heart attacks/8 yrs
- On low fat (10 % calcs from fat) vegan diet + Statin
- No. of heart attacks
- Angiographic improvement

*Am J Cardiol* 1999;**84** (3): 339–41



# Esselstyn study

## Reversal of Coronary Disease

November 27, 1996

July 22, 1999



- Reduce attacks from 48 / 8 yrs to 1 / 12 yrs.
- Stenosis regression 11 out of 25 lesion
- Stop progression of stenosis 14 out of 25 lesion

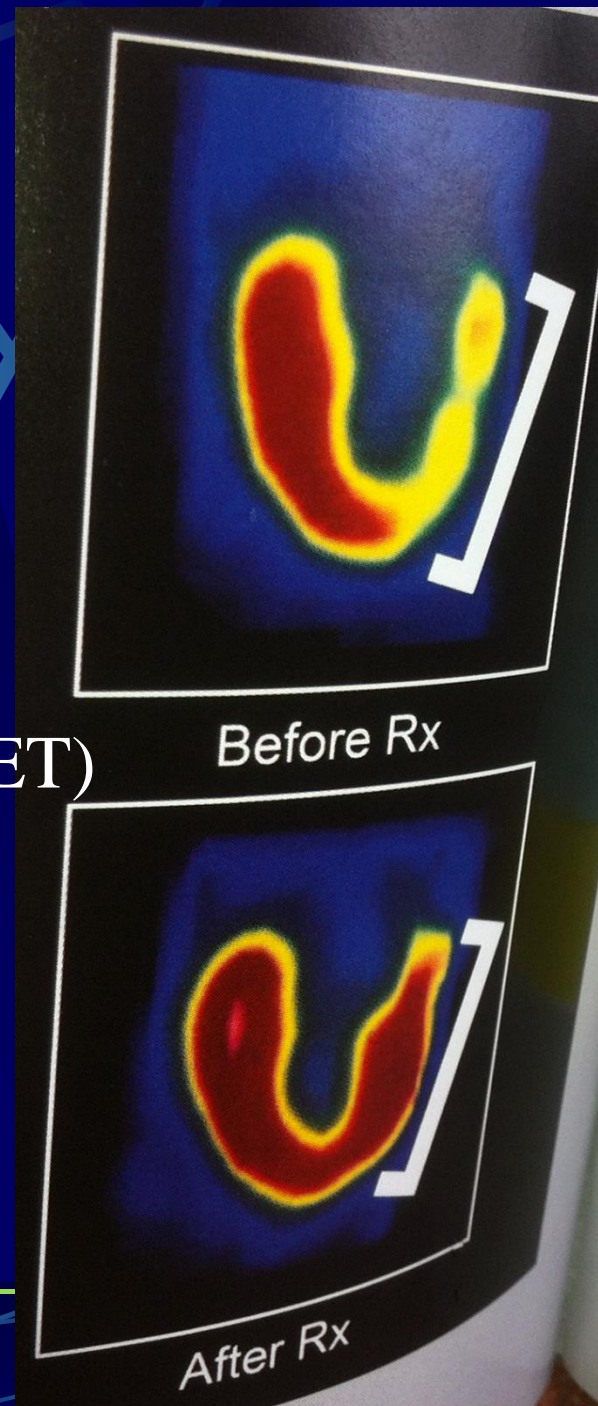


# Esselstyn study

Positron Emission Tomography (PET)

*Esselstyn CBJ. Prevention and Reverse Heart disease. 2008*

*ISBN -10: 1-58333-300-272-3*



# Ornish's Study

- RCT 5 yrs, 93 IHD patients
  - Low fat (10% cal) vegan diet
  - Aerobic exercise 5/wk
  - Stress management daily
  - Peer support group
  - Smoking cessation,
- end pt % diameter stenosis + cardiac events.**

*JAMA. 1998;280(23):2001-2007*



# Ornish's TLM study

## One year results

Lancet 1990; 336: 129-33.



Group	Stenosis	Pain
<b>TLM group</b>	Decreased 4.5%	Decreased 91 %
<b>Control</b>	Increased 5.4%	Increased 165 %

# Dean Orhish

## 5 yrs. results



Group	Vessel Diameter	Hosp. admit
<b>TLM group</b>	increased 7.9%	0.89 ครั้ง
<b>Control group</b>	Decrease 27.7%	2.25 ครั้ง



# Pritikin's Runaway Study

64 heart patients, runaway from CABG surgery.  
Encamping 3 wks, follow 5 yrs



- **80% Able to cancel planned bypass**
- **68% symptom relieved without drugs**

# My conclusion 4

Changing to plant based low fat food is by far more important factor in reversing atherosclerosis



# My conclusion 5

I can bring my high blood pressure down to normal range by eating plant-based food and exercise instead of taking medication

# JNC guidelines

<b>Type of lifestyle modification</b>	<b>BP reduction</b>
<b>Weight loss 10 kgs</b>	<b>20 mm</b>
<b>DASH Diet</b>	<b>14 mm</b>
<b>Reduce salt to less than 6 gm/day</b>	<b>8 mm</b>
<b>Moderate intensity exercise 150 min/wk</b>	<b>9 mm</b>

# The DASH Diet

AHA Promoted to Stop Hypertension



[www.PulseOS.com](http://www.PulseOS.com)

PULSE  
OS

**Dietary Approach to Stop Hypertension**  
**Fruits, Vegetable, Whole grain, Nuts, Seeds,**  
**0% fat milk, fish, poultry**

# My conclusion 6

If I am pre-diabetes or diabetes,  
I can cure it by changing my  
food to low fat vegan diet.

# DPPRG Study

3,234 prediabetic patients

- *Gr 1. Total lifestyle modification*
- *Gr 2. Metformin*
- *Gr 3. Controle*





# DPPRG Results

N Engl J Med 2002; 346:393-403



Group	Rate of turning DM
TLM group	4.8 %
Metformin gr.	7.8 %
Control gr.	11.0 %



# Neal Barnard

RCT

99 diabetic patients

22 weeks

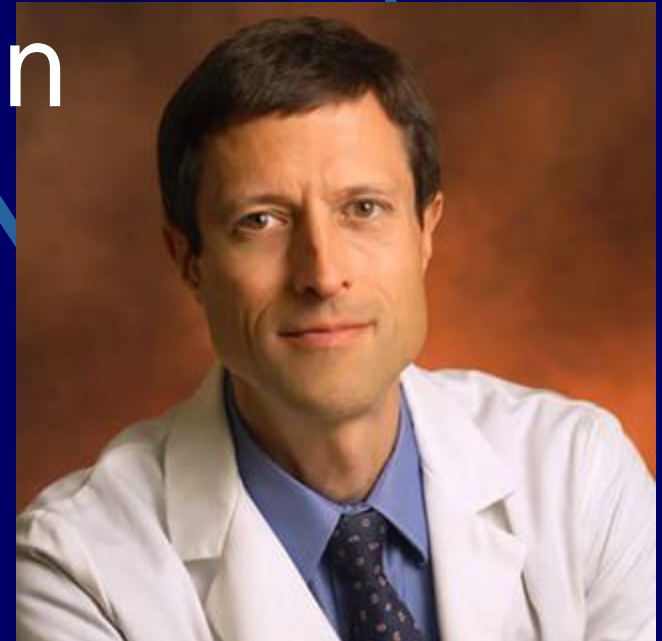
- Gr.1: Low fat vegan diet
- Gr.2. American Diabetic Assoc. diet



# Barnard study results

Low fat vegan diet can

- More % stop drugs (43%vs26%)
- Reduce more A1C (1.22%vs0.38%)
- Reduce weight more (6.5 kg.VS 3.1 kg)
- Reduce LDL more (21.2% vs 10.7%)



# My conclusion 7

Plant based food do good to your health regardless of your fat consumption level

# Lyon Diet Heart Trial

RCT planned 5 yrs.

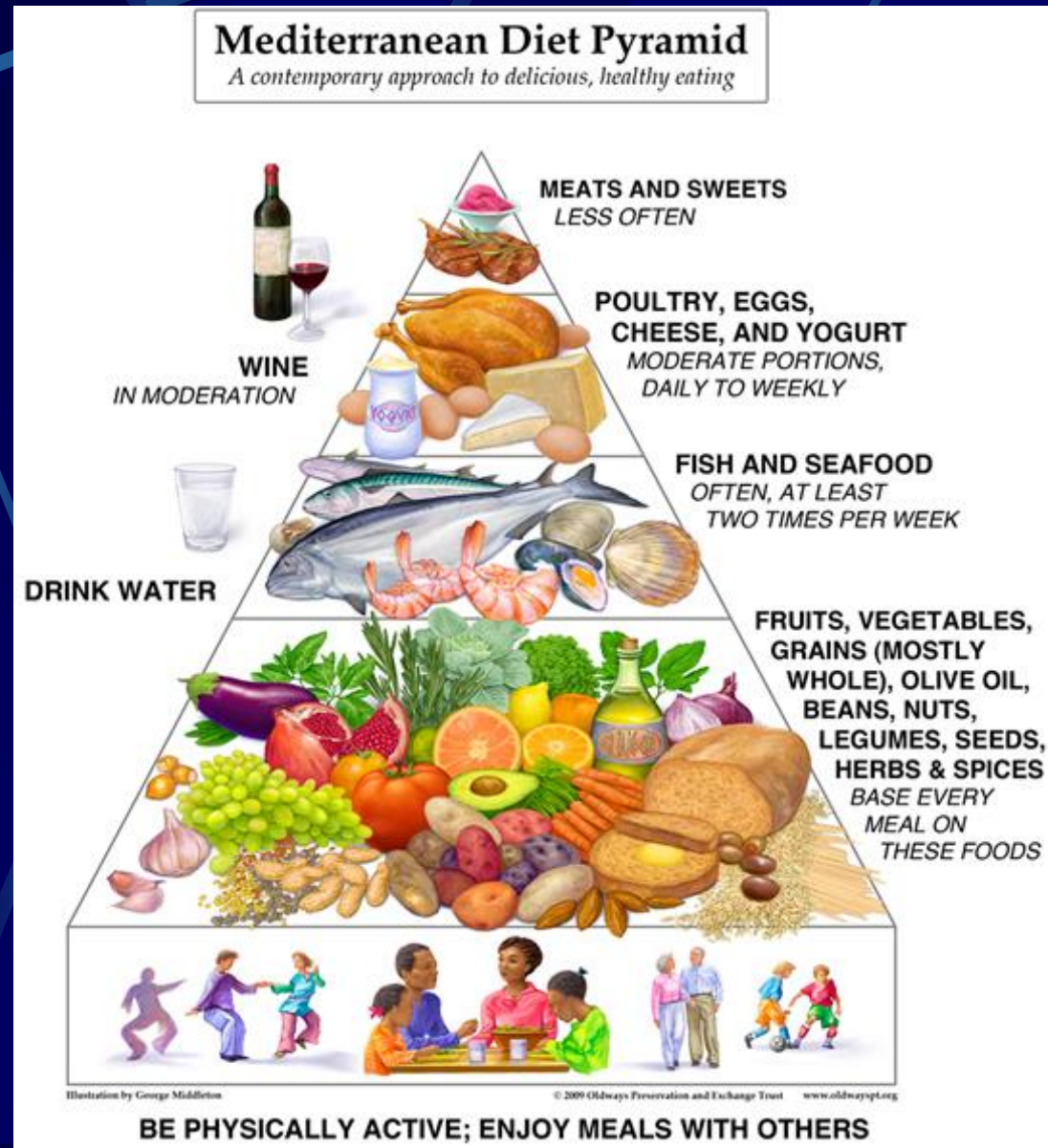
Gr:1 Mediterranean diet

Gr:2 AHA (American) diet

Same blood cholesterol (239)

Mediterranean diet had 70% less  
bad endpoints.

Lancet. 1994 Jun 11;343(8911):1454-9.



# My conclusion 8

If I want to reduce fat,  
trans fat is the first one to go.  
Then (any) cooking oil is the  
second.



# 1. (Trans fat)





# Cardiovascular events from various fat

Type of fat	% Events
Trans fat	<u>More than carb</u> 93 %
Saturated fat	<u>More than carb</u> 17 %
Mono unsat fat	<u>Less than carb</u> 19 %
Poly unsat fat	<u>Less than carb</u> 38 %

New England J of Med 1997;337;1491-1499

# How to tell which on is trans fat

- Solid or powder
- Hydrogenated oil
- **No cholesterol (be ware!)**
- Coffee cream, margarine, cake, cookies, sweets, snacks



# Cooking with oil



Fry = 450 แคลอรี

Other = 165 แคลอรี

# My conclusion 9

Processed meat

Or

Red meat

Is not good.

# WHO 2015

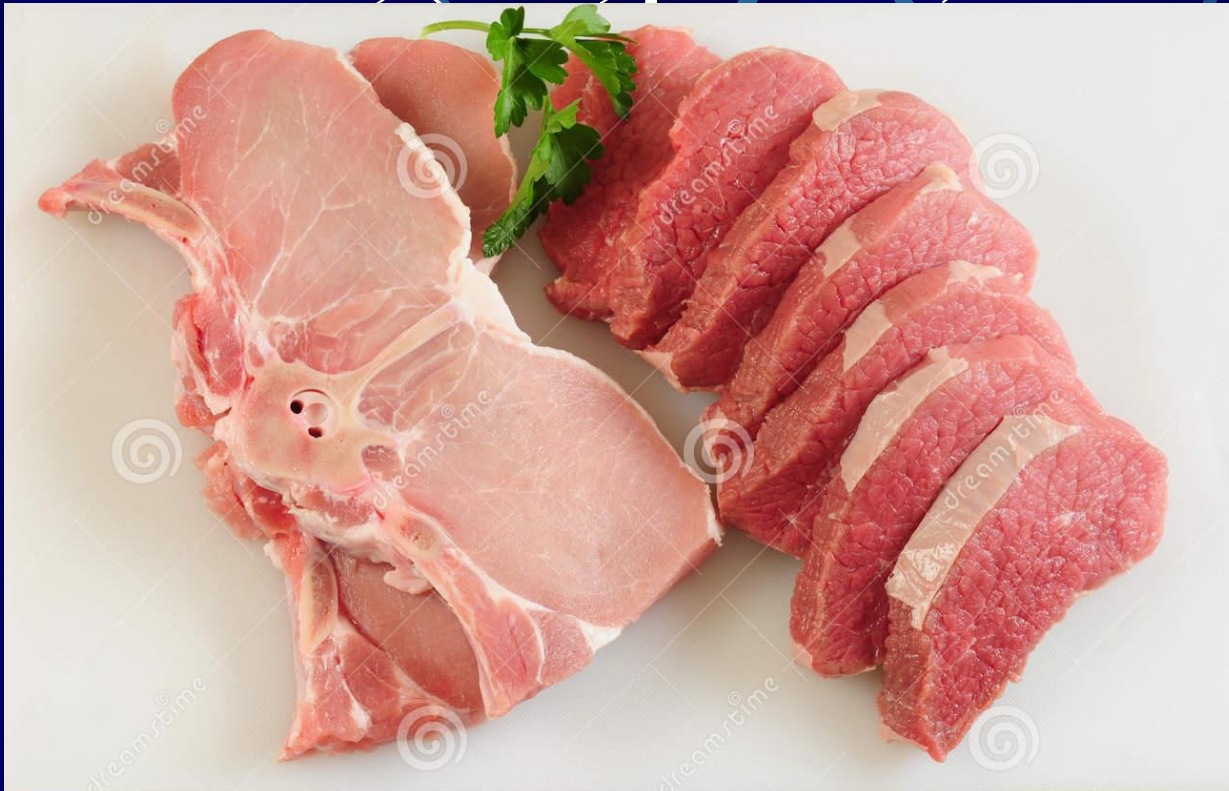
**1. Processed meat is carcinogenic class 1A  
(sausage, bacon, ham)**





# WHO 2015

2. Red meat is cardiogenic class 2A.  
mammals' meat, (beef, pork etc)



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# My conclusion 10

**Nut and  
seeds  
are good**

**Nut associates  
with lower all  
cause mortality**



*JAMA Intern Med. 2015;175(5):755-766.*

# My conclusion 11

Whole food is better than extracted, polished, processed food.

# Apple VS Appld juice

- *Eat apple*
- Drink apple juice
- Follow 8 years

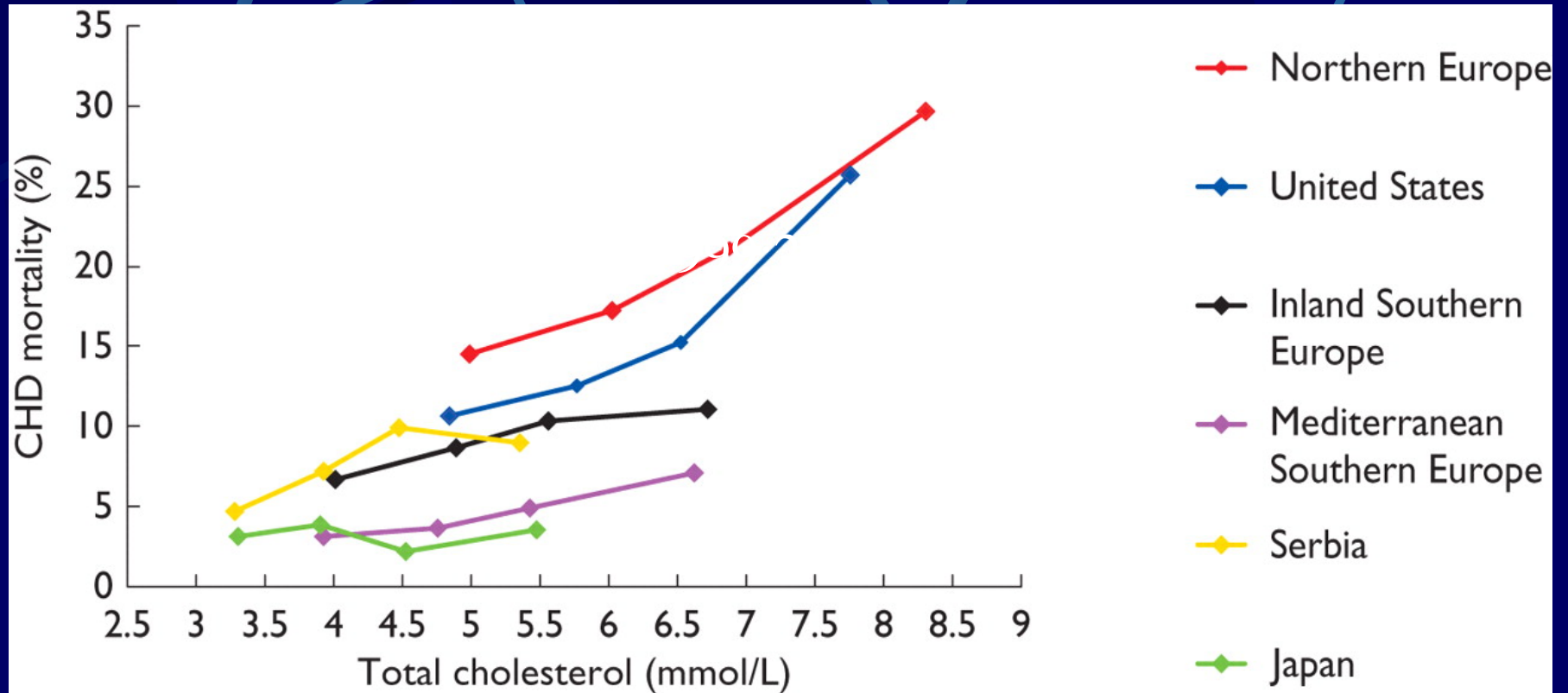
*Am J Cardiol 1999;84:339 –341.*



# Oil?



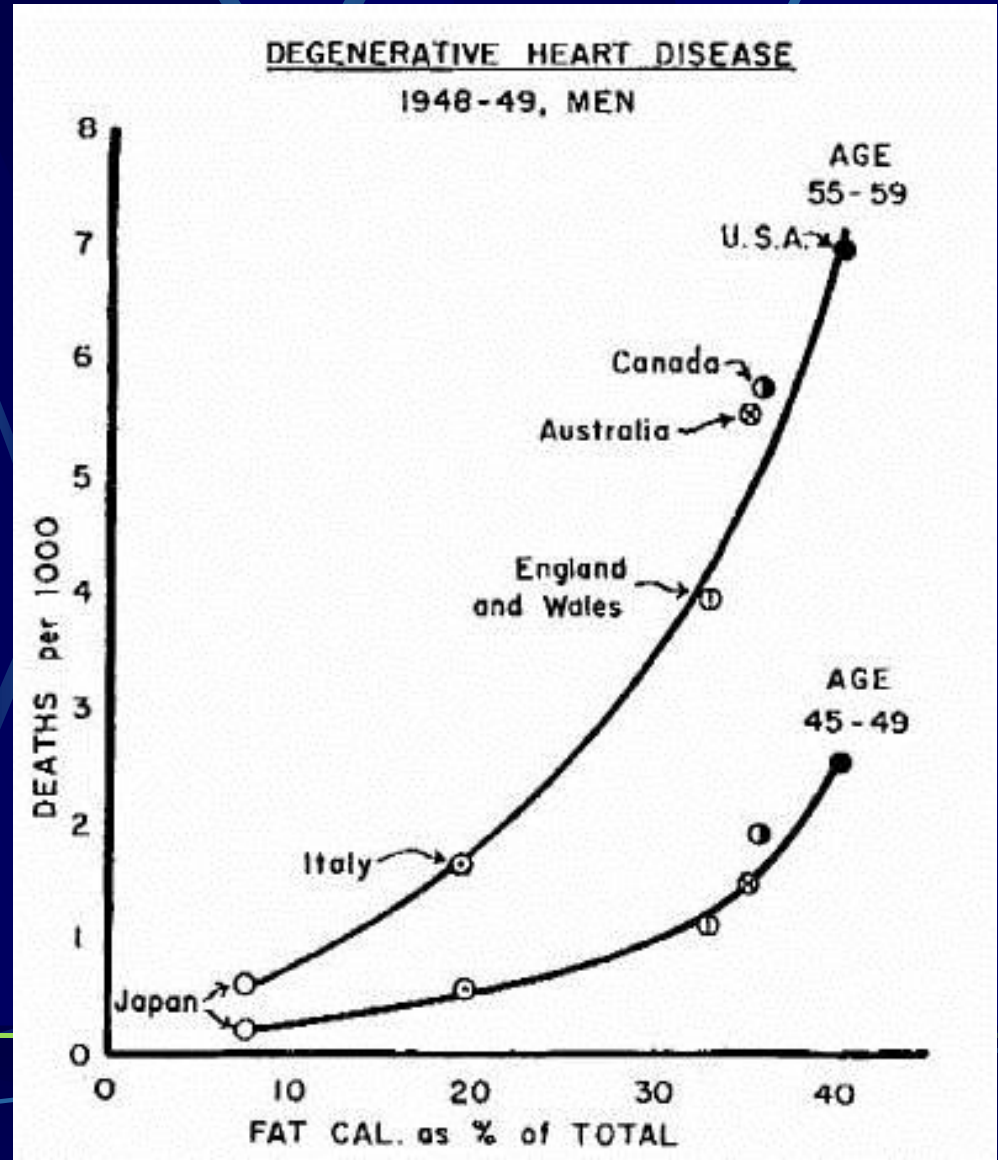
# Cholesterol & mortality



Eur Heart J 1999;20:796-802.

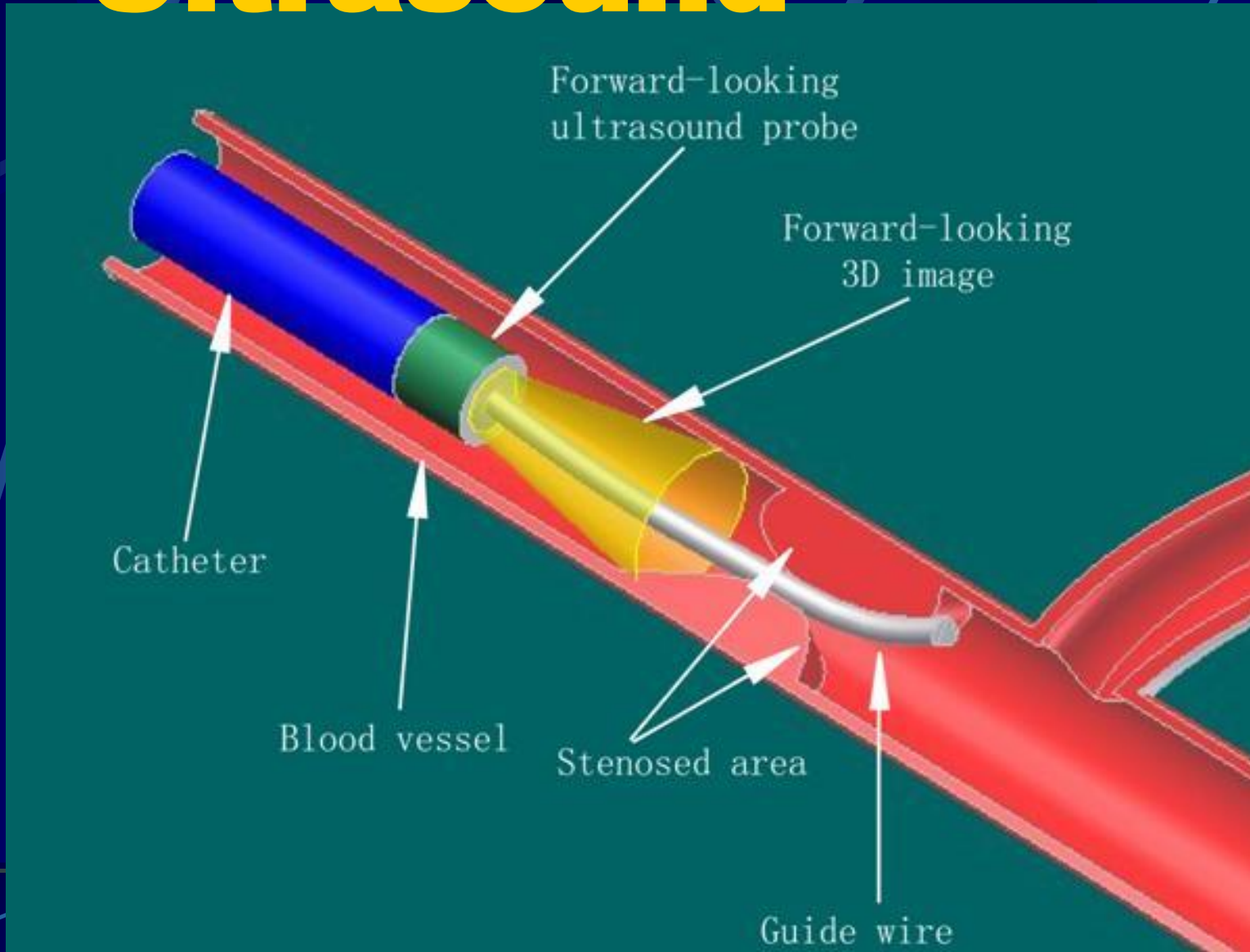


# Cholesterol & mortality



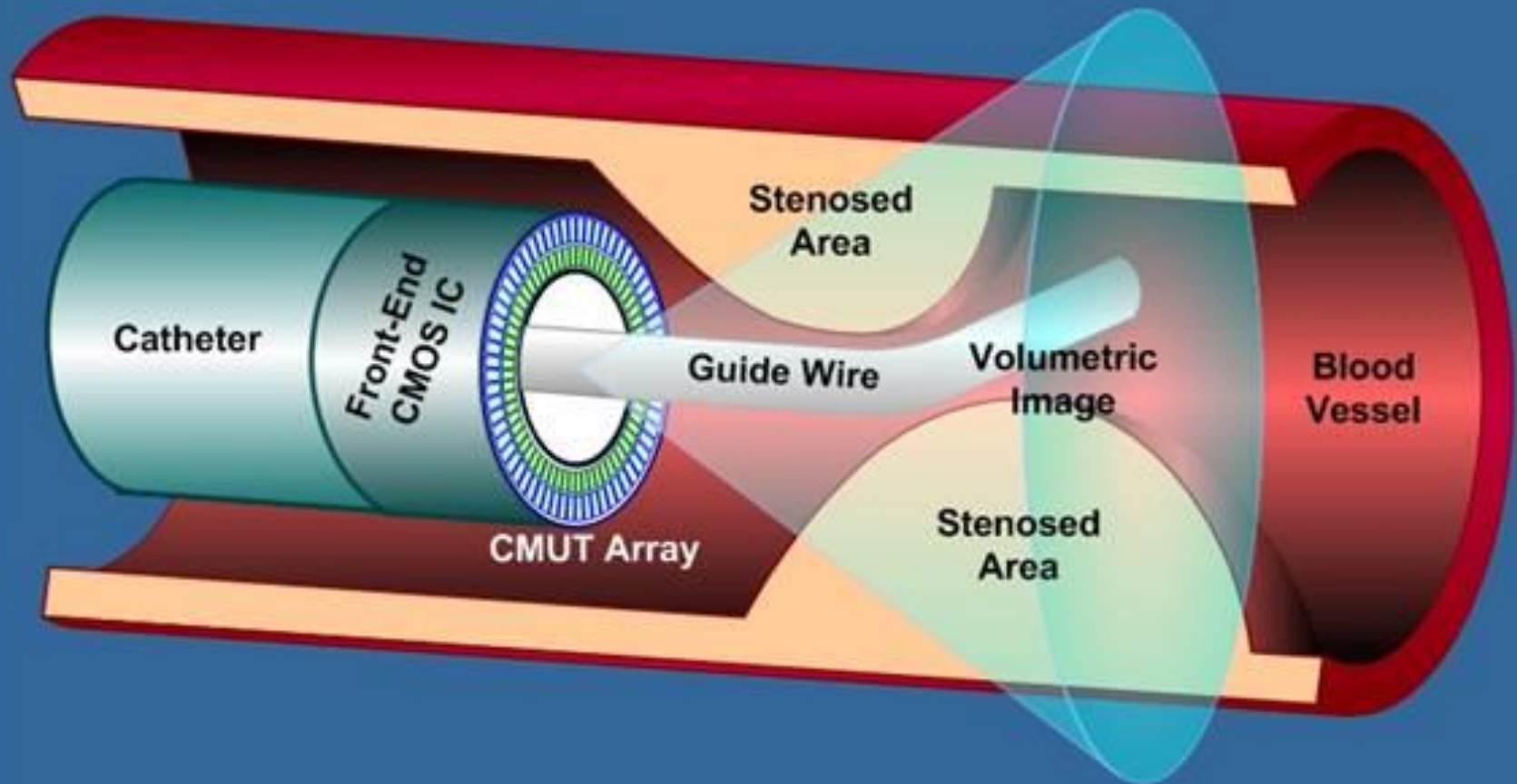


# Intravascular Ultrasound

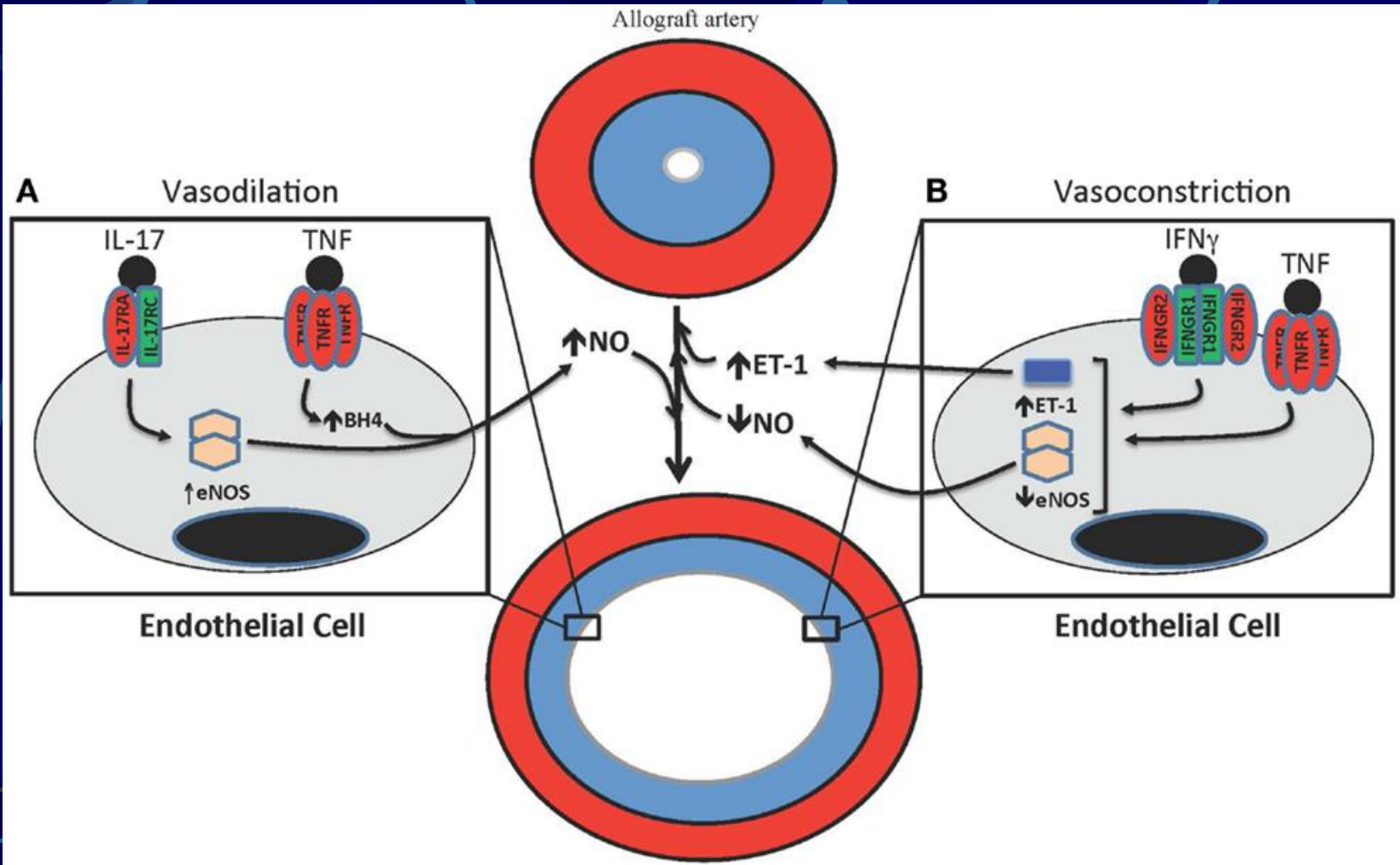


# Intravascular Ultrasound

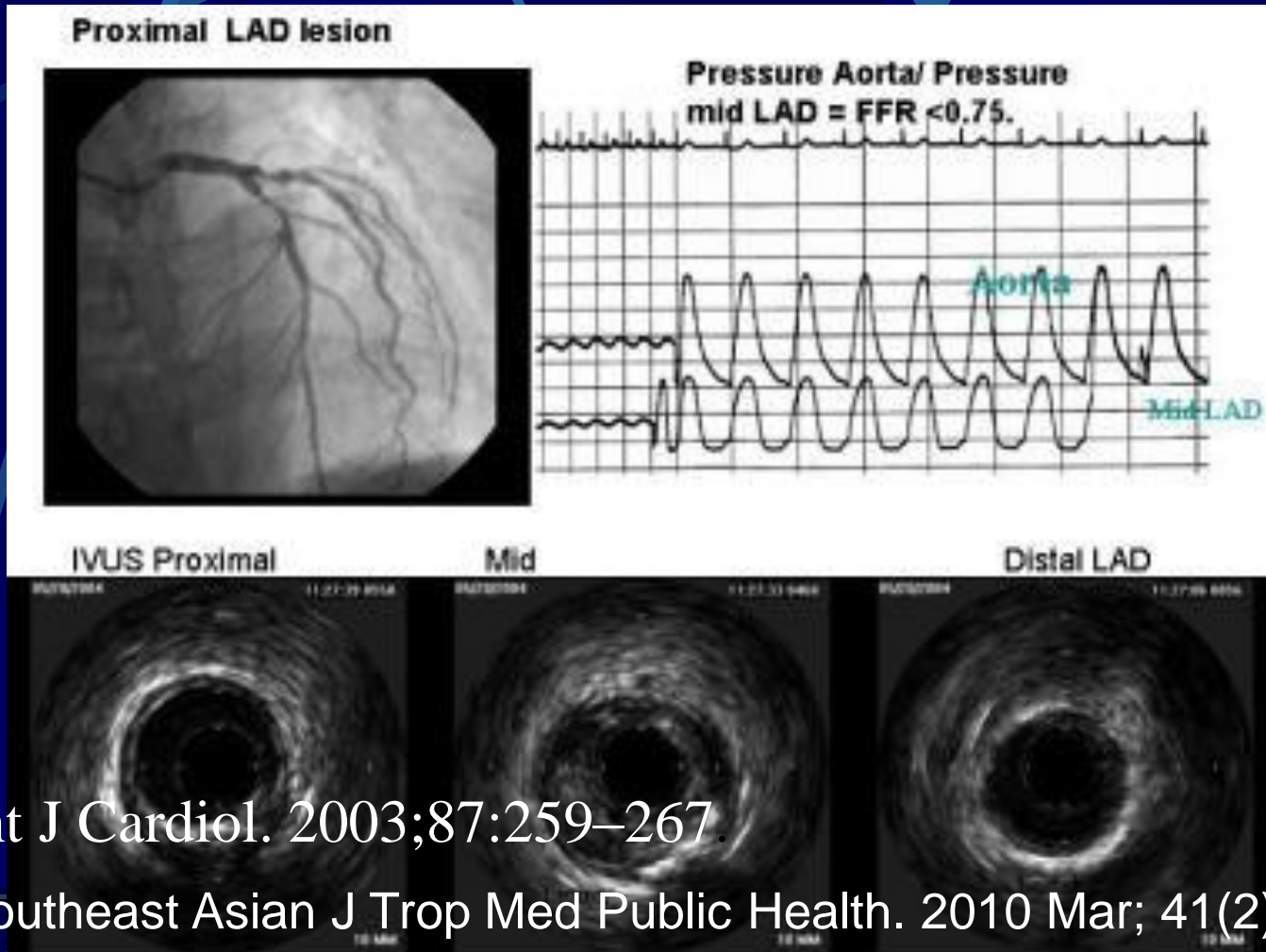
Forward-Looking IVUS Imaging Using Dual-Ring CMUT Array



# Fat meal and blood vessel constriction



# Fat meal and blood vessel constriction



**My conclusion 12**

**NO Oil !**



**What  
have I  
done  
to heal  
myself?**





# Stop cake



by moko ('v'-'-)\*\*...\*\*

# Stop Cookies





# Replace cookies with nuts & fruits



**Black coffee,  
no sugar please.**



**coffee = 3 cals**  
**cream = trans fat**  
**Sugar = high cals.**

# Nut as snacks





# Stop Coke



# Stop all packed fruit juice





# Increase vege & fruits



**Save  
chewing  
time**



**No cooking oil**





**Replace  
white rice  
with non  
polished  
rice**



**Remove  
salt**



# Change hungry snack





# Cook It Myself



# My menu1. salad





# My menu2 Porridge



# Lifestyle Modification

Plant based, low fat food



Exercise



Stress management

Peer support

# Standard Exercise

(ACSM / AHA)

Aerobic exercise at moderate intensity for at least 30 min. not less than 5 times/wk

Plus

Strength training at least 10-15  
reps/set, 8-12 sets/time, 2  
times/wk,

# **Aerobic key words**

**ACSM / AHA)**

**Moderate intensity**

(puff and huff, can not sing any song)

**Continue 30 minutes**

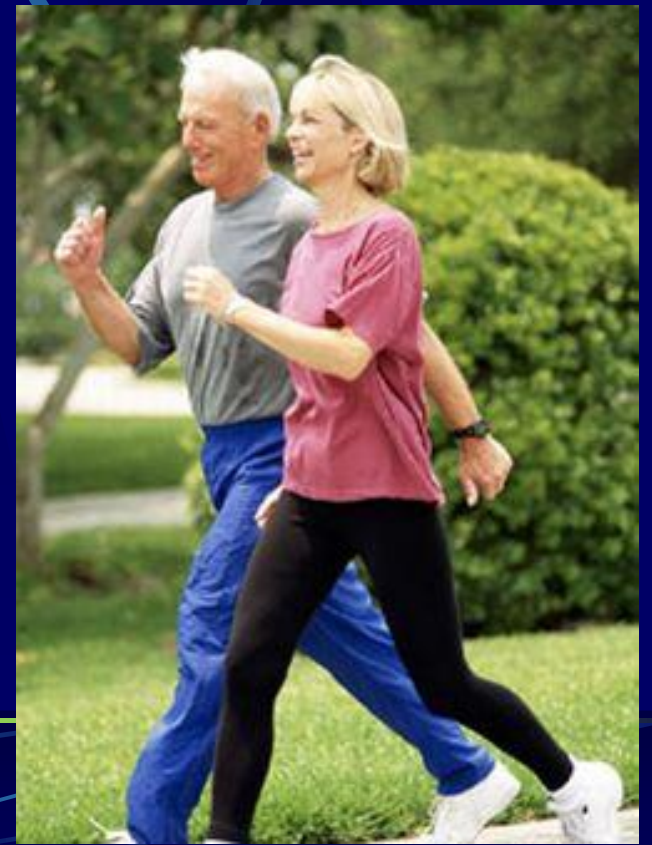
**5 times per week**

(150 min/wk or 2.5 hrs.)



# Aerobic

- Swim
- Brisk walk
- Biking
- Sports





# Elliptical



# Brisk Walk



# Biking





# **Strength Training Exercise**



# 10 Muscle Groups

- Biceps
- Triceps
- Deltoid
- Pectoraris
- Back
- Abs
- Quadriceps
- Hamstring
- Gluteus
- Gastroc



# Self management

Self-management is the process by which patients assume control of their health-related behaviors.



**Good Health By Yourself**

# CHIP Program

5,070 patients attended community base skill development program of 1 hour x 18 sessions then do homework 30 days

**Body mass off -3.2%**  
**Blood press off -5.3%**  
**Chol off -19.8%**  
**Triglyceride off -44.1%**



# Simple Health Index

1. BMI (Weight)
2. Blood Pressure
3. Blood Cholesterol
4. Blood Sugar
5. Fruit&Vege/day
6. Exercise time/wk
7. Smoking

