



## Vascular Risk Reduction: Why is it Important?





# Vascular Risk Reduction (VRR)

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Welcome!

- Presentation & Activities
- Focus: Why reducing vascular risk is of primary importance.
- Engage, collaborate and have fun!



# Vascular Risk Reduction

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## Objectives:

- Discuss the impact of vascular disease in Canada
- Identify the prevalence of vascular risk
- Discuss the collaboration and rationale for C-CHANGE guideline development
- Describe the process of vascular disease development



# Impact of Vascular Disease

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## Vascular Risk Round Up:

1. Volunteer reads Question card.
2. The person with the correct Answer card must wave it and read the answer aloud.
3. If correct, it will be his/her turn to read out the question on the Question card.
4. If not correct, everyone must agree on the correct answer, then ask the person with the correct Answer card to read out his/her question.
5. Play continues until all questions have been read, along with their correct answers.



# Impact of Vascular Disease

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- Major cause of death and disability
  - Affects more than 300,000 Albertans
- Every 7 min in Canada someone dies of heart disease or stroke
- Costs Canadians \$7.4 billion/yr (hosp, Dr & drug), plus \$12.8 billion/yr in lost productivity
- Costs Albertans \$373 million/yr (heart disease & stroke)



# Vascular Disease

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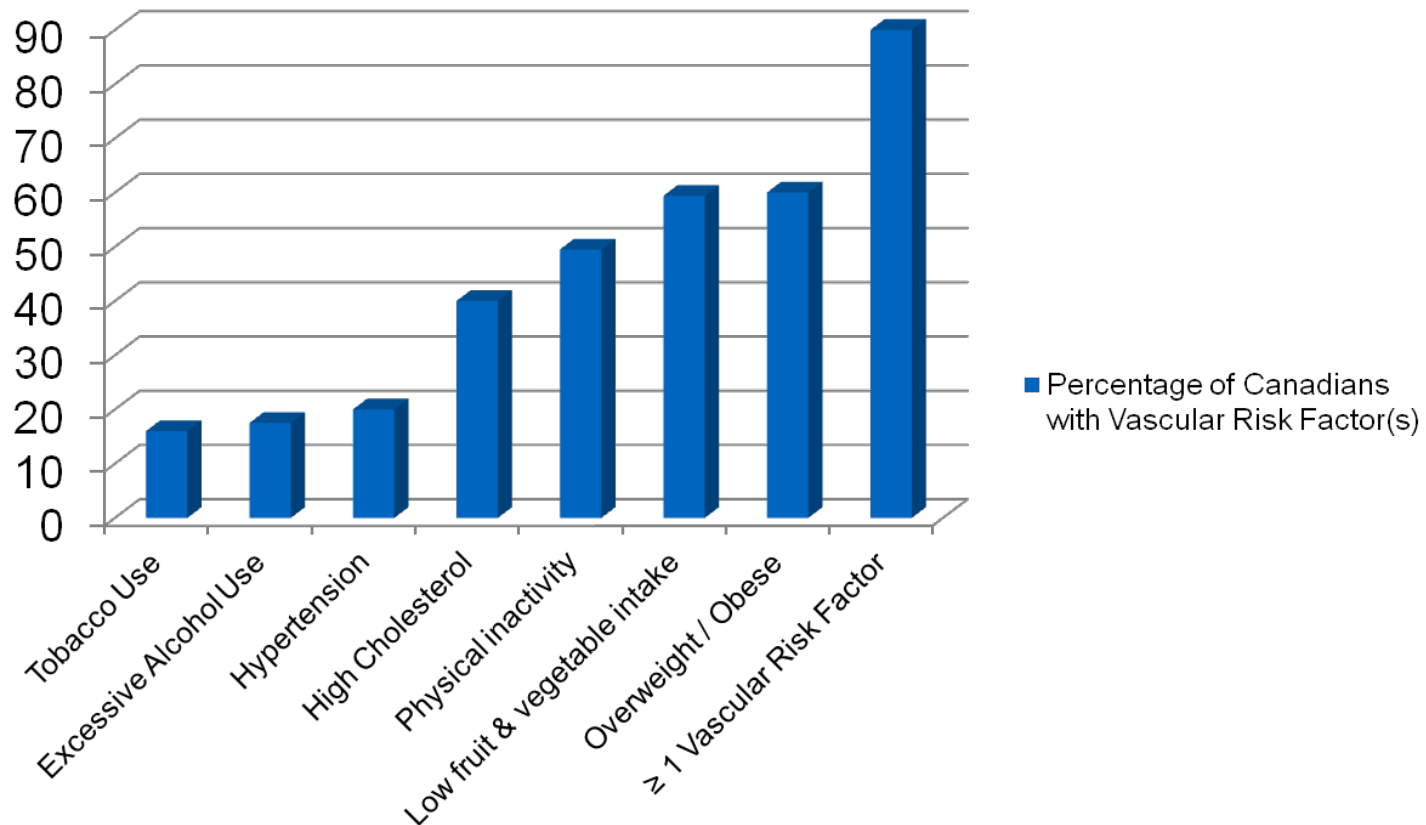
- Causes are known and preventable
- Over 90% of Canadians have at least 1 common vascular risk factor (VRF)
- VRF are largely uncontrolled

*VRF identification, control and management are key to the prevention of vascular disease!*



# Prevalence of Vascular Risk

## Canadians with Vascular Risk





# Vascular Risk:

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- 38 y/o male
- Smoker
- Diabetes
- Hypertension
- Hypercholesterolemia
- Slightly reduced renal function (CKD)
- Recent TIA

*How should he be managed?*





# What Should You Do?

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Clinical Practice Guidelines (CPG):



1. Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-Informed Tobacco Treatment
2. Canadian Association of Cardiac Rehabilitation
3. Canadian Cardiovascular Society Lipid Guidelines
4. Canadian Diabetes Association
5. Canadian Hypertension Education Program
6. Canadian Society for Exercise Physiology
7. Canadian Stroke Network
8. Obesity Canada



# Harmonized Guidelines

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## Canadian Cardiovascular **H**Armonization of **N**ational **G**uidelines **E**ndeavour

### Mission:

- Harmonize CPGs for vascular disease prevention & treatment
- National strategy for prevention & treatment of vascular disease
  - Reps from the 8 guideline groups and 3 GPs
  - Reduced 400 recommendations to 89



# C-CHANGE

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Resources:

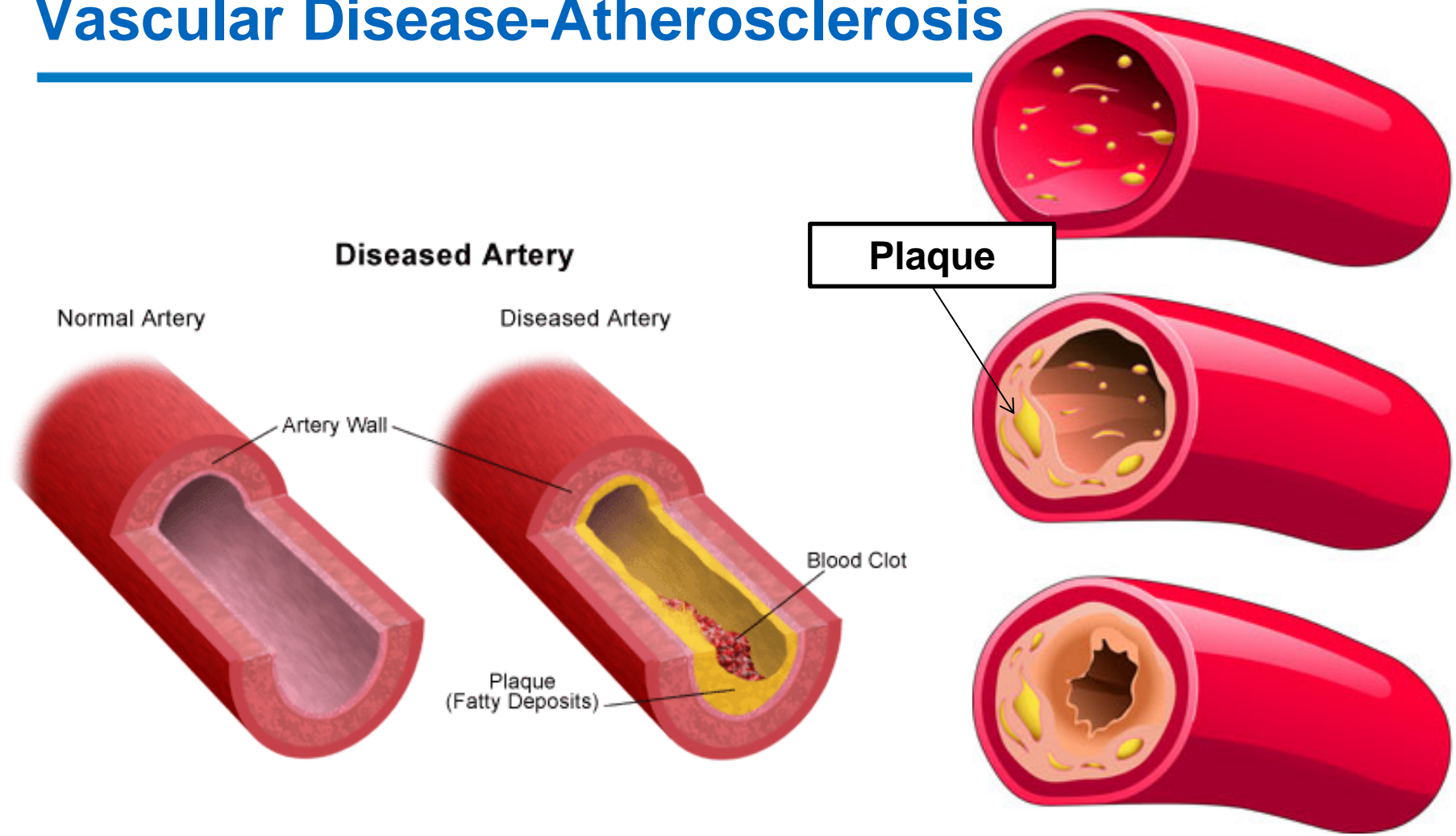
National website: C-CHANGE Clinical Resources Center:  
[www.c-changeccrc.ca](http://www.c-changeccrc.ca)

Patient / Public Resource:  
[www.c-changeinme.com](http://www.c-changeinme.com)





# Vascular Disease-Atherosclerosis

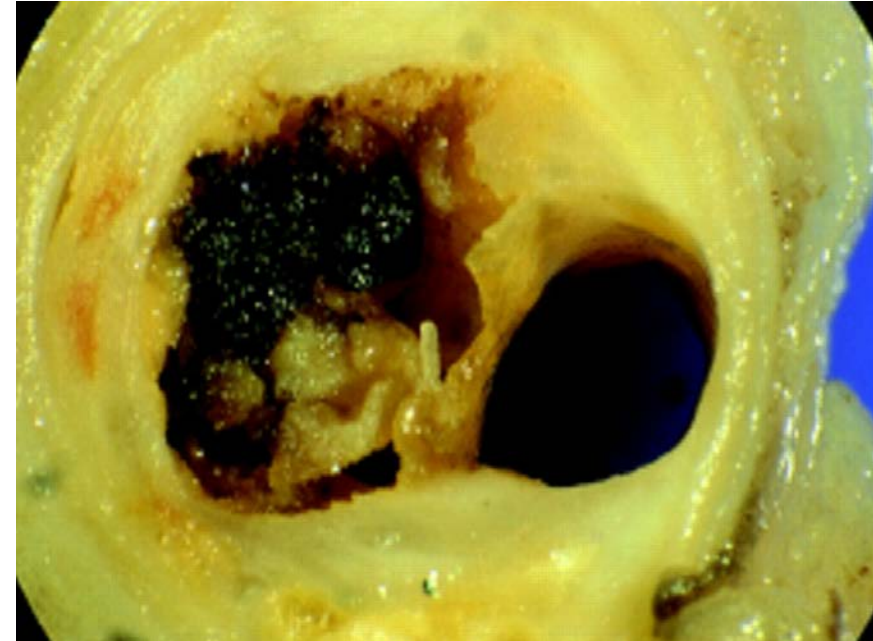
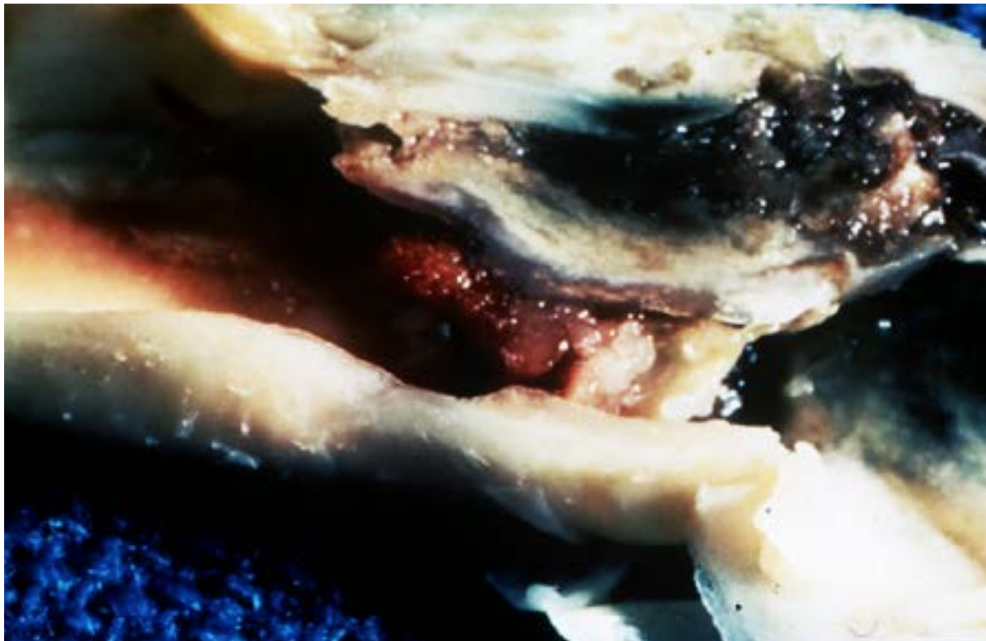




## Vascular Disease-Athero-thrombosis

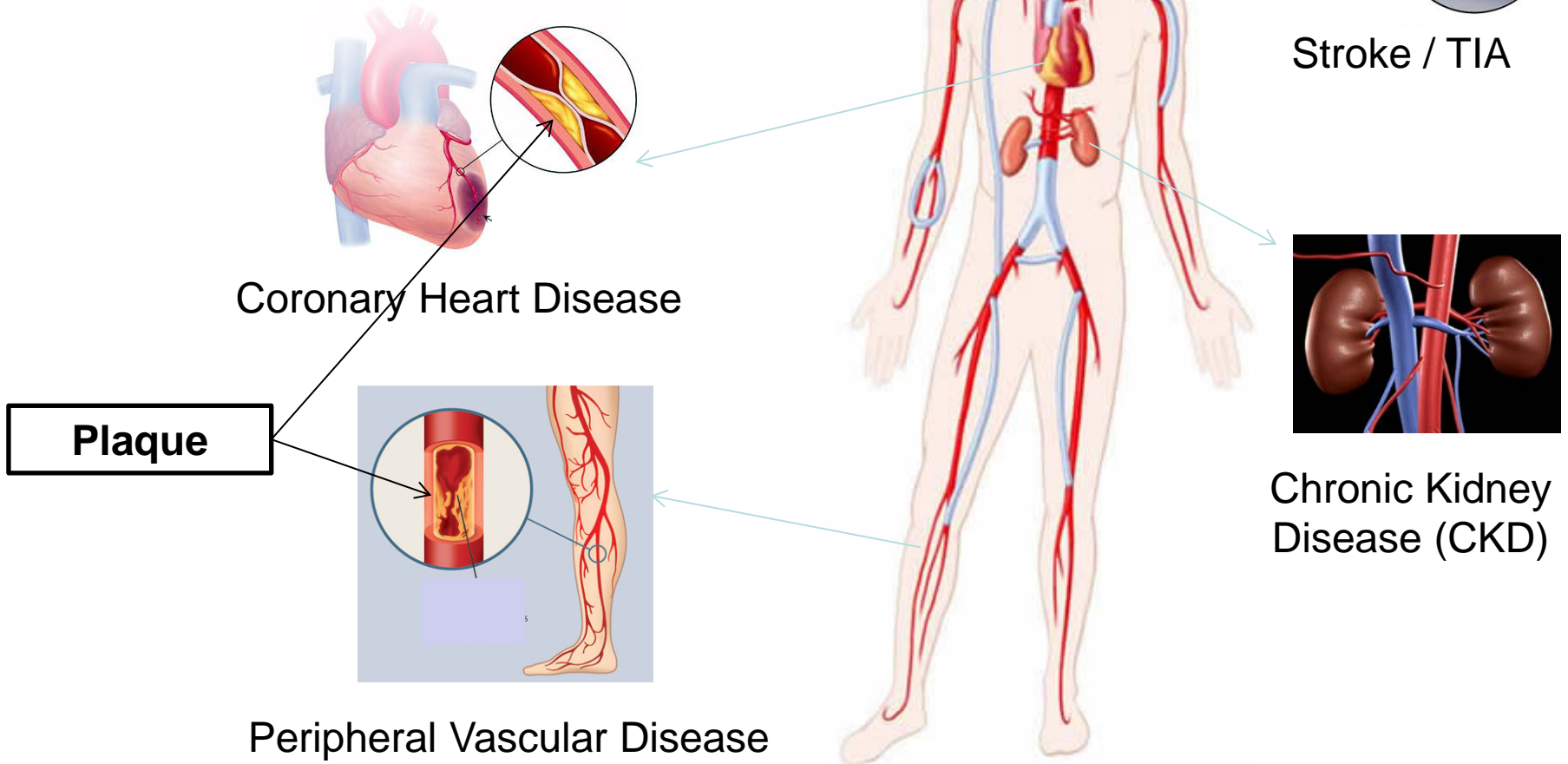
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Athero-thrombosis is characterized by a sudden atherosclerotic plaque disruption leading to platelet activation and thrombus formation



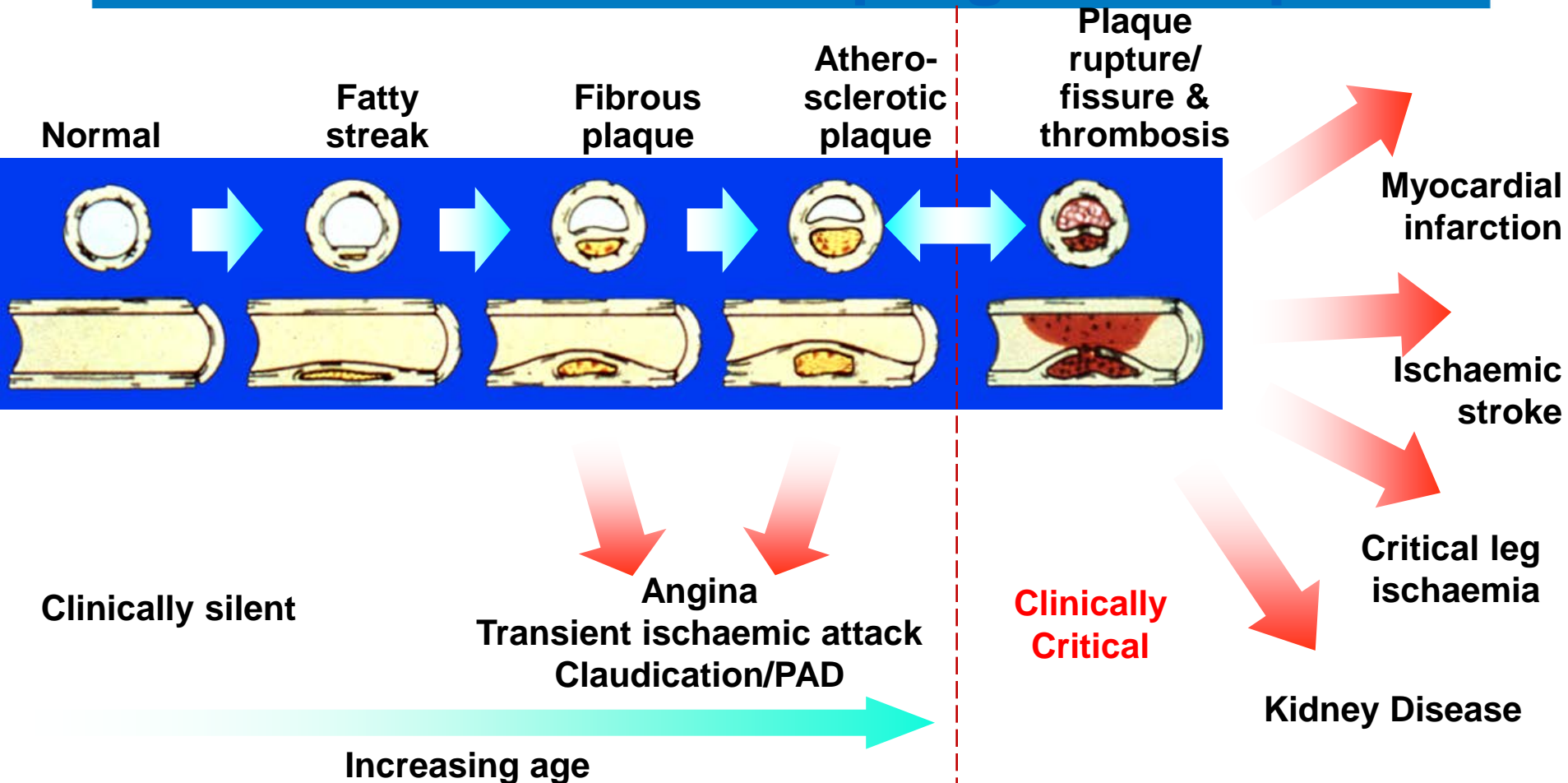


# Vascular Disease



# Vascular Disease

## Athero-thrombosis: a progressive process



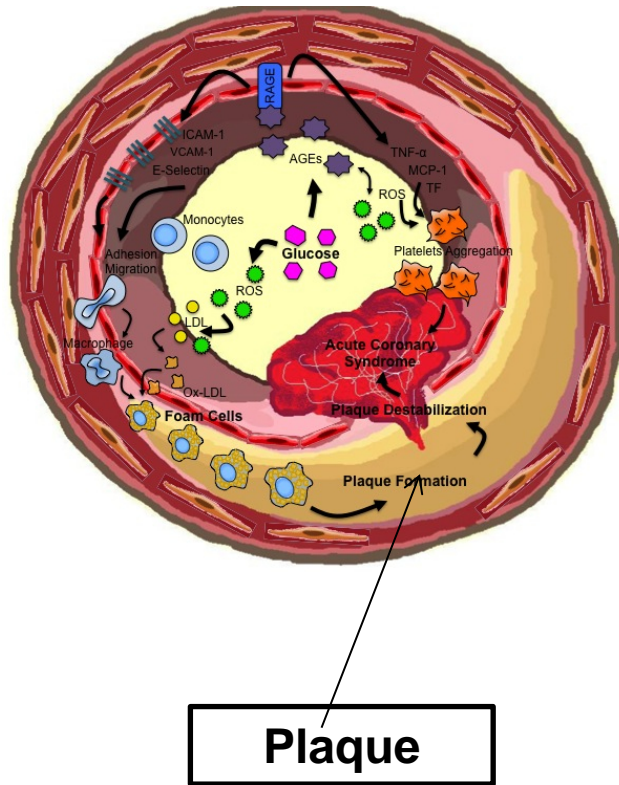
# Vascular Disease and Diabetes

Normal endothelium produces nitrous oxide (NO)

- Relaxes vessel wall
- Prevents cells sticking

Diabetes

- Disrupts NO production
  - gluc & lipids → sticky walls → local tissue reaction → plaque
- Increases vessel constriction
  - Vessels hyperactive
- Affect platelets and clotting factors
  - Cells are stickier
  - ↓ effect of factors that inhibit clot formation







# Vascular Risk Reduction (VRR)

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## Key Messages:

- Vascular disease is the major cause of death and disability in Alberta and in Canada
- Causes of vascular disease are known and preventable
- Over 90% of Canadians have at least 1 common vascular risk factor (VRF)
- National harmonized CPGs exist for vascular disease prevention & treatment (C-CHANGE)

# Questions?

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