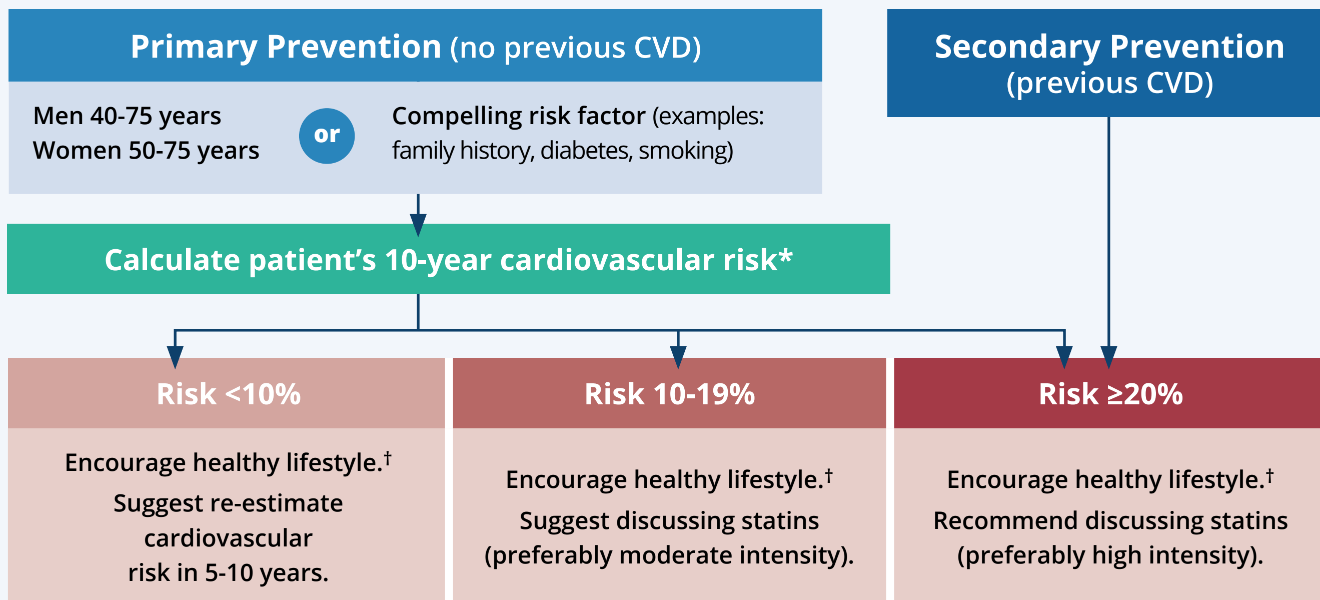
PEER Simplified Lipid Guideline 2023: Summary

Simplified approach | Shared decision making | Reduce unnecessary testing

Treatment Algorithm

(Excludes familial hypercholesterolemia)



Statin initiated?

No

- Suggest re-estimating cardiovascular risk in 5-10 years, sooner if risk factors change.

Yes

- No repeat lipid testing.
- No baseline creatine kinase or alanine transaminase unless clinically indicated.

For secondary prevention, if additional cardiovascular risk reduction is desired beyond maximum statin dose:

- Recommend discussing ezetimibe or PCSK9 inhibitors.
  - Due to adverse events, suggest EPA ethyl ester (icosapent) only after ezetimibe or PCSK9 inhibitor considered.

* Risk levels based on Framingham, the only 10-year calculator validated in Canada.

† Lifestyle includes smoking cessation, physical activity and the Mediterranean diet

CVD = cardiovascular disease
EPA = eicosapentaenoic acid
PCSK9 = proprotein convertase subtilisin-kexin type 9

Statin Intensity

Statin (mg)	Low	Moderate	High
Atorvastatin	5	10-20	40-80
Pravastatin	10-20	40-80	-
Rosuvastatin	2.5	5-10	20-40
Simvastatin	5-10	20-40	-

Benefit of Statin Therapy

Sample Patient, CVD Risk over 10 years	Statin Option	Relative Risk Reduction	Absolute Risk Reduction	New 10 year Risk on Therapy
20%	Moderate Intensity	25%	5%	15%
	High Intensity	35%	7%	13%

The College of Family Physicians of Canada / Le Collège des médecins de famille du Canada
PEER Patients Experience Evidence Research
Alberta College of Family Physicians
Ontario College of Family Physicians — Leaders for a healthy Ontario.
The Saskatchewan College of Family Physicians / Le Collège des médecins de famille de la Saskatchewan

Lipid Lowering Agents

Drug	Prescribing Considerations	CVD Relative Risk Reduction	90-day cost[1]
Statins	• The only lipid lowering agent that decreases all-cause mortality. • Muscle symptoms in first year: 15% versus 14% placebo. • Do not worsen cognition or dementia.	25-35%	$30-50
Ezetimibe	• Mostly studied when added to statins in secondary prevention. • Well tolerated; 10mg daily.	7%	$30-45
PCSK9 inhibitors	• Mostly studied when added to statins in secondary prevention. • Injection site reactions: 3.5% versus 2.1% placebo. • Subcutaneous injections every 2 weeks: alirocumab 75-150mg or evolucumab 140mg.	~15%	$1500-2400
Fibrates	• Increase serum creatinine (2-11% more than placebo), pancreatitis (~0.1% more), altered liver function tests (~5% more); example: fenofibrate.	0-14%*	$60-150
EPA ethyl ester (icosapent)	• Mostly studied when added to statins. • Atrial fibrillation (5.3% versus 3.9% placebo), serious bleeds (2.7% versus 2.1% placebo); 2g twice daily.	~20%	$1000

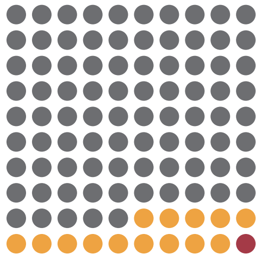
* 0% if added to statins; up to 14% if not on a statin

[1] *RxFiles PEER/ACFP Pricing Document*

EPA = eicosapentaenoic acid; CVD = cardiovascular disease;
PCSK9 = proprotein convertase subtilisin-kexin type 9

Management of Muscle Symptoms Related to Statins

Out of 100 patients on statins, 15 report muscle symptoms, but only 1 is due to statins



If a patient does not tolerate a statin, discuss statin rechallenge

OPTIONS

- Same statin at same dose
- Lower dose or intensity
- Different statin
- Alternate day dosing

If a patient is unable to tolerate or unwilling to try a re-challenge

Primary prevention

Suggest against non-statin lipid lowering therapy

Secondary prevention

Suggest discussing ezetimibe, fibrate, PCSK9 inhibitor or EPA ethyl ester (icosapent)

FAQ & Helpful Resources

Q: Why do PEER guidelines recommend against targeting low-density lipoprotein (LDL) levels?

A: The vast majority of clinical trials have prescribed fixed statin doses based on CVD risk. Best evidence suggests both strategies (targeting LDL levels or using statins at proven doses) are similarly effective in reducing CVD risk. Targeting cholesterol levels is more complex than use of proven doses. A simplified approach of using proven doses reduces the burden of unnecessary testing for both patients and health professionals. Read more about this issue in the guideline.

Q: Which cardiovascular decision aid should I use?

A: There are many cardiovascular risk calculators. The Framingham model has been validated in Canada. The PEER Cardiovascular Decision Aid (https://decisionaid.ca/cvd/), based on Framingham, has been created for this guideline.

Q: How can I help patients with positive lifestyle changes?

A: Encourage smoking cessation. Providing exercise prescription and information about the Mediterranean diet may be helpful.

RXFILES EXERCISE PRESCRIPTION

MEDITERRANEAN DIET

The College of Family Physicians of Canada / Le Collège des médecins de famille du Canada
PEER Patients Experience Evidence Research
Alberta College of Family Physicians
Ontario College of Family Physicians — Leaders for a healthy Ontario.
The Saskatchewan College of Family Physicians / Le Collège des médecins de famille de la Saskatchewan

Can Fam Physician 2023;69:675-86 (Eng), e189-201 (Fr). DOI: 10.46747/cfp.6910675