Harms

All drugs can potentially have side effects. For statins, one person of every 10-20 we treat will develop muscle aches or stiffness. In research studies, muscle aches are almost as common among those taking placebo (sugar pills). It is often hard to figure out if the medicine is causing a side effect—the only real way to tell is to stop and see if the side effect goes away, and restart the medication later. Roughly 1 in 10,000 people will develop severe muscle or kidney injury. Statins may also irritate the liver, but the risk of serious injury is extremely low.

Monitoring for benefits and harms

Once you have decided to take a statin, there is very little reason to repeat a cholesterol test. Statins work regardless of your cholesterol level, and there really aren't any other cholesterol medications we can add that will meaningfully lower your risk. When it comes to side effects, there is no need for routine lab monitoring as the serious risks are very low.

If you notice muscle aches or any other abnormal signs, please contact your healthcare provider.

You decide

Once the benefits and harms have been explained to your satisfaction, the decision to take a medication is up to you. Your values and preferences play a large part in determining whether the benefits of taking this medication outweigh any inconveniences or potential harms.

What benefits can I expect?

Example if your baseline risk is estimated at 20% over 10 years.

Therapy		Risk Decreased By	New Estimated Risk
Quit Smoking		9%	11%
Mediterranean Diet		6%	14%
Exercise		6% or better	14% or lower
Statin Intensity	Low to Moderate	5-6%	14-15%
	High	7%	13%
ASA		2%	18%

Alberta College of Family Physicians

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Reducing **Heart Attack** and **Stroke Risk**

Shifting from Your Cholesterol Numbers to Your Heart and Stroke Risk Numbers

Thinking differently about your numbers

For decades, medical organizations and health care providers have been asking you to worry about your

CHOLESTEROL "NUMBERS"

While this was done with the best of intentions, starting **today** we would like you to think a little bit differently about your numbers.

It's all about your chance of a heart attack or stroke (not just your numbers)

The only reason we treat your numbers is because we hope that by doing so, we will lower your chance of having a heart attack or stroke, also known as cardiovascular disease (CVD).

Estimating your chance of getting CVD

Even with today's impressive medical advancements we can still only make a rough estimate of your risk of CVD. Using factors like your age, gender, smoking status, blood pressure, diabetes, and cholesterol, a health care provider can use prediction tools to help estimate your personal 10-year chance of developing CVD.

CVD Risk Categories

While it is somewhat arbitrary, we typically think about 10-year CVD risk in three different categories:

- Low: <10%
- Moderate: 10-20%
- High: >20%

For example, 10% risk means that you have roughly a one in 10 chance of having a heart attack or stroke in the next 10 years.

Cholesterol and Risk Factors

There is little doubt that cholesterol is a risk factor for heart attack and strokes. However, there are about 300 risk markers for CVD and, for many of these, changing them has no impact on heart attack and stroke risk. In fact, some medicines that improve cholesterol do not change your risk. There is one class of cholesterol medication (statins) that reduces your risk of heart attack or stroke. This benefit happens regardless of what your cholesterol number is while taking the medicine. So once you are taking a statin, monitoring cholesterol is not needed—and is just an unnecessary blood test.

How often do I need a cholesterol test?

If you are not on a statin, you probably don't need a cholesterol check more often than every five years or so. A cholesterol test is not 100% accurate and can actually vary as much as 7% every time you test, even if your cholesterol hasn't changed. Cholesterol changes only about 1-2% per year, so any difference seen over a few years is likely just the variation in the test and not a true change in your cholesterol.

Lifestyle Interventions

Regardless of your actual risk, or the CVD risk category that you fall into, we strongly encourage you to not smoke, be physically active, and eat healthy food because these changes will both lower your risk and offer other health benefits. For nutrition, the best available research suggests the Mediterranean diet is probably the healthiest—and is actually quite similar to nutrition recommendations that come from Health Canada.

Medications that can reduce your chance of CVD

Statins reduce the risk of CVD—at a low to moderate dose, they reduce CVD by roughly 25%. That means if your 10-year risk was estimated to be 10%, taking a statin will reduce your risk to 7.5%, and if your risk was 20%, it will be reduced to 15%. Sometimes for people who have already had a heart attack or stroke, or whose risks are greater than 20%, we will use a higher dose of a statin to give roughly a 35% benefit. For these people (especially those with past heart attack or stroke), we sometimes also suggest taking a low-dose ASA (Aspirin®) to further lower their risk.

Ask your health care provider to help you determine your **specific potential benefit.**