

# UNDERSTANDING STATINS

Making an informed decision

## Why This Information Matters to You

This guide is designed to help you understand your risk of developing cardiovascular diseases (CVD) and whether taking a statin medication is the right choice for you. Making informed decisions about your health is important, and we're here to provide clear and supportive information.

## Understanding Cardiovascular Diseases

**Cardiovascular diseases (CVD)** affect the heart and blood vessels. Key conditions include:

- **Heart Attack:** Occurs when the blood supply to your heart muscle is suddenly and completely obstructed.
- **Angina:** Chest pain caused by a partial restriction of blood flow to the heart that flares up during physical exertion or periods of high stress when the heart rate increases.
- **Stroke:** Occurs when blood flow to the brain is interrupted.
- **TIA (Transient Ischaemic Attack):** A temporary interruption of blood flow to the brain, sometimes called a "mini-stroke."

Heart attacks and strokes are medical emergencies that can lead to long-term complications or disability. Understanding your risk is the first step in taking control of your health.

## Understanding Your Personal Risk

Your risk of developing CVD is estimated using the **ASSIGN 2.0** tool. This tool considers several factors:

- Age, Sex
- Family and personal medical history, Social history (e.g., smoking status)
- Blood pressure, Cholesterol levels

The tool calculates your **10-year risk percentage** for developing CVD. For example:

- If your risk is **20%**, this means that out of 100 people with a similar profile to you, 20 are expected to have a heart attack or stroke within the next 10 years, while 80 will not.

**Important:** This score is an *estimate*, not a guarantee. It helps you understand your general risk level.

## Ways to Reduce Your Risk

There are several ways to lower your risk of developing cardiovascular diseases. These include lifestyle changes and, in some cases, medication.

### Lifestyle Changes:

- Stop smoking
- Be more physically active
- Eat a healthy diet
- Maintain a healthy weight
- Limit alcohol intake
- Manage high blood pressure or diabetes: Work with your doctor to manage these conditions with medication if needed.

## What Are Statins?

Statins are medications (e.g., atorvastatin, rosuvastatin) that lower cholesterol levels in your blood. By reducing cholesterol, statins help reduce the buildup of fatty deposits in your blood vessels, lowering the risk of heart attack and stroke.

Statins can be used alone or in combination with lifestyle changes for even greater benefit. It's important to remember that statins *reduce* risk, but they do not eliminate it completely.

## How to Take Statins

Statins are typically taken as **one tablet daily**, and they are usually prescribed for long-term use. You can stop taking statins at any time, but keep in mind that the protective benefits end when you stop.

### Monitoring:

- You'll have a blood test before starting statins to check your cholesterol levels and liver function.
- A follow-up blood test is usually done after 6 weeks to see how well the statin is working and monitor your liver function before deciding to take this long-term.
- Depending on your circumstance, you may have subsequent reviews with your nurse or doctor, which may include additional blood tests.

## Effectiveness of Statins

Statin effectiveness can be best visualized using diagrams, as shown below. Have a look at the diagram for the ASSIGN 2.0 score nearest to your own.

- **10% Risk:**

On average, for every 100 people with this risk score who do not take a statin, over 10 years 10 people will get heart disease or have a stroke and 90 will not.



If 100 people take a statin, over 10 years on average:

- about 90 people will not get heart disease or have a stroke, but would not even if they had not taken a statin
- about 4 people will not get heart disease or have a stroke because they take a statin
- about 6 people will get heart disease or have a stroke even though they take a statin

We cannot say for sure what will happen to any specific person

● **15% Risk:**

On average, for every 100 people with this risk score who do not take a statin, over 10 years 15 people will get heart disease or have a stroke and 85 will not.



If 100 people take a statin, over 10 years on average:

- about 85 people will not get heart disease or have a stroke, but would not even if they had not taken a statin
- about 5 people will not get heart disease or have a stroke because they take a statin
- about 10 people will get heart disease or have a stroke even though they take a statin

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● **20% Risk:**

On average, for every 100 people with this risk score who do not take a statin, over 10 years 20 people will get heart disease or have a stroke and 80 will not.



If 100 people take a statin, over 10 years on average:

- about 80 people will not get heart disease or have a stroke, but would not even if they had not taken a statin
- about 7 people will not get heart disease or have a stroke because they take a statin
- about 13 people will get heart disease or have a stroke even though they take a statin

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● **25% Risk:**

On average, for every 100 people with this risk score who do not take a statin, over 10 years 25 people will get heart disease or have a stroke and 75 will not.



If 100 people take a statin, over 10 years on average:

- about 75 people will not get heart disease or have a stroke, but would not even if they had not taken a statin
- about 9 people will not get heart disease or have a stroke because they take a statin
- about 16 people will get heart disease or have a stroke even though they take a statin

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● **30% Risk:**

On average, for every 100 people with this risk score who do not take a statin, over 10 years 30 people will get heart disease or have a stroke and 70 will not.



If 100 people take a statin, over 10 years on average:

○ about 70 people will not get heart disease or have a stroke, but would not even if they had not taken a statin

● about 11 people will not get heart disease or have a stroke because they take a statin

● about 19 people will get heart disease or have a stroke even though they take a statin

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● **35% Risk:**

On average, for every 100 people with this risk score who do not take a statin, over 10 years 35 people will get heart disease or have a stroke and 65 will not.



If 100 people take a statin, over 10 years on average:

○ about 65 people will not get heart disease or have a stroke, but would not even if they had not taken a statin

● about 13 people will not get heart disease or have a stroke because they take a statin.

● about 22 people will get heart disease or have a stroke even though they take a statin

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● **40% Risk:**

On average, for every 100 people with this risk score who do not take a statin, over 10 years 40 people will get heart disease or have a stroke and 60 will not.



If 100 people take a statin, over 10 years on average:

○ about 60 people will not get heart disease or have a stroke, but would not even if they had not taken a statin

● about 15 people will not get heart disease or have a stroke because they take a statin

● about 25 people will get heart disease or have a stroke even though they take a statin

We cannot say for sure what will happen to any specific person

## Possible Side Effects

Most people who take statins experience no side effects. However, like all medications, statins can sometimes cause side effects.

- **Muscle pain:** This is the most common side effect, but it is often mild. Severe muscle damage is extremely rare (about 3 extra cases per 10,000 people taking statins).
- **Diabetes:** Statins may slightly increase the risk of developing diabetes. Out of 100 people taking statins, approximately 1 person may develop diabetes due to the statin. However, statins still provide strong protection against CVD even for those who develop diabetes.
- **Other mild effects:** These may include headaches, sleep changes, and digestive issues (nausea, constipation, diarrhoea). These are usually temporary.

It's important to note that there is no proven link between statins and dementia, according to the National Institute for Health and Care Excellence (NICE).

## Making Your Decision

The decision to start taking a statin is a personal one, and you can change your mind later. It's important to discuss your options with your healthcare professional to align with your values and health goals.

### Self-Check Questions:

1. Do you feel certain about your choice?
2. Do you understand the pros and cons of each option?
3. Which benefits or risks matter most to you?
4. Do you have enough information to make an informed decision?

## Next Steps

1. **Discuss your risk score** with your doctor.
2. **Review this information** and any questions you have.
3. **Consider your lifestyle** and what changes you are willing to make.
4. **Talk to your doctor** about whether statins are right for you.
5. **If you decide to start statins**, follow your doctor's instructions carefully.