

# The need for a better control of LDL-cholesterol levels to tackle the risk of cardiovascular disease

Cardiovascular disease is the leading cause of death and disability globally, killing about **18 million people** a year<sup>1</sup>. This number is on the rise with nearly 24 million deaths a year predicted by 2030<sup>2</sup>.



**1 in 3**

deaths in the world are a direct result of cardiovascular disease<sup>6</sup>

**Atherosclerotic cardiovascular disease (ASCVD)** – which accounts for over **85%** of all cardiovascular disease deaths – can lead to heart attacks and strokes<sup>3</sup>. The main risk factor is elevated LDL-C (low-density lipoprotein cholesterol) – also called “bad cholesterol”<sup>4,5</sup>.



**4 out of 5** cardiovascular deaths are due to heart attacks and strokes<sup>3</sup>

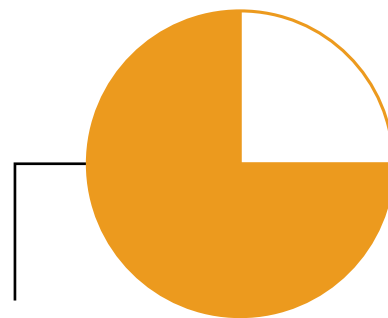
## Role of long-term exposure to high LDL-C levels

Atherosclerosis is defined as the fatty buildup in the inner lining of the artery, also known as “atherosclerotic plaques”. These plaques result from an accumulation of “bad cholesterol” (LDL-C) over time. As the disease progresses, most people do not experience significant symptoms until the atherosclerotic plaque unexpectedly ruptures, causing a heart attack or stroke. It is estimated that one in four rupture cases are recurrent events<sup>7</sup>.

Moreover, **the longer a person is exposed to sustained LDL-C levels, the higher the risk** of developing ASCVD and therefore of a severe cardiovascular event<sup>4,5</sup>. Like sun exposure, intensity and duration are key determinants of the risk incurred.

## Controlling LDL-C levels is crucial

Based on large studies, the American and European guidelines for the management of blood cholesterol and dyslipidemias support the principle that the risk of ASCVD events is associated to LDL-C and recommend – in addition to lifestyle changes (e.g. diet, physical activity...) – **treatments to reduce and maintain low LDL-C levels**<sup>4,5</sup>. Hence, it is crucial to integrate regular LDL-C level control to patients’ care experience and ensure appropriate follow-up.



**75%**

of recurrent cardiovascular events are preventable<sup>1</sup>

## When statins are not enough to reach LDL-C goals

Statins are currently prescribed to over 200 million patients worldwide as an LDL-C lowering therapy<sup>8</sup>. But these therapies are no longer meeting everyone's needs<sup>9,10</sup>.

### Multiple factors may impact the success of current available treatments:

**Poor adherence to treatment**, sometimes due to lack of information, side effects or frequent mode of administration<sup>11</sup>

▶ After one year, **less than 50% of patients are still taking their statin treatment**<sup>11</sup>

Even when people take their oral treatment as prescribed, **not all reach their LDL-C goals**<sup>9,10</sup>

▶ **80% of high-risk patients do not achieve guideline-recommended LDL-C targets on statins alone**, putting them at risk of further cardiovascular events and death<sup>9,12</sup>

This demonstrates a **significant unmet need for an effective and sustained LDL-C reducing treatment**<sup>9</sup>.

Bending the curve of life requires addressing some of society's greatest public health concerns. Committed to reimagining medicine, Novartis has a growing pipeline of potentially first-in-class molecules addressing cardiovascular, metabolic and renal diseases.

### References

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