Statin therapy can reduce the levels of atherogenic proteins...¹

...and significantly lower the risk of atherosclerotic cardiovascular disease (ASCVD)¹

**Existing statin therapies²**

<table>
<thead>
<tr>
<th>Statin</th>
<th>Dose Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atorvastatin</td>
<td>10–20 mg</td>
</tr>
<tr>
<td>Rosuvastatin</td>
<td>5–10 mg</td>
</tr>
<tr>
<td>Simvastatin</td>
<td>10–20 mg</td>
</tr>
<tr>
<td>Pravastatin</td>
<td>10–20 mg</td>
</tr>
<tr>
<td>Lovastatin</td>
<td>20–40 mg</td>
</tr>
<tr>
<td>Fluvastatin</td>
<td>20–40 mg</td>
</tr>
</tbody>
</table>

However, some patients experience adverse side-effects and statin intolerance, resulting in discontinuation of therapy¹

**Factors that lead to treatment discontinuation¹,²**

- Non-adherence to treatment¹
- Lack of persistence¹
- Adverse side-effects of statins²,³
- Statin intolerance
- Skeletal muscle-related symptoms (SAMS) or myalgias
- Elevated levels of creatinine kinase (CK)
- Abnormalities in liver function tests
- Myopathy
- Associated with Statin dose
- Not associated with LDL-C reduction

Visit [https://ascvd-lipidology.knowledgehub.wiley.com/](https://ascvd-lipidology.knowledgehub.wiley.com/) for additional resources
Strategies to overcome the limitations of statins

Switching to a tolerable statin regimen
- Dose reduction
- Switching to a better suited statin agent
- Changing the dose frequency

Intermittent non-daily dosing
- 70% patients tolerate intermittent statin doses without the recurrence of treatment-limiting SAMS

Optimizing lifestyle interventions
- Diet modification
- Weight control
- Physical activity

Reassessing tolerance for the same statin after a washout period

Non-statins medications which either replace or are combined with statin therapy
- Ezetimibe
- Bile acid sequestrants
- Proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors

Identifying and modulating the risk factors associated with statin intolerance
- Hypothyroidism
- Co-medications and potential drug interactions
- Alcohol use
- Strenuous exercise
- Vitamin D deficiency
- Obesity
- Diabetes
- Chronic kidney disease

Other lipid-lowering agents
- Bempedoic acid (an ATP citrate lyase inhibitor)
- Fibrates
- Icosapent ethyl
- Nicotinic acid

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Assess risk

Severity of muscle symptoms  
Level of patient discomfort  
Current statin therapy  
Risk factors

Impaired quality of life?

Yes

Decrease dosage or discontinue statin and reassess symptoms

Reassess symptoms

Switch to a different statin if symptoms persist

No

Intermittent dosing, dose de-escalation, and lifestyle modification

Check CK levels

CK < 3* upper limit of normal (ULN)

Continue statin therapy with dose modification

CK > 3* ULN

Discontinue statin and consider non-statin treatments

CK > 5–10* ULN

Seek urgent care

Management of statin intolerance\(^1,3\)

Identify a tolerable statin regimen

Modify dose or statin therapy based on clinical trial data that favor reduced cardiovascular event risk

Consider non-statin therapy in high-risk patients with a history of statin intolerance

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Patient non-adherence can negatively impact the outcomes of statin therapy and increase the risk of ASCVD and associated mortality.

Shared decision-making and communication between the clinician and patient may help improve treatment compliance.

Switching to a different statin or dose modification may benefit patients experiencing adverse effects like SAMS. Non-statin medications may be considered in high-risk patients with persistent symptoms.

Pharmacological and lifestyle modifications can help patients with treatment continuation.

References: