TOOLKIT

Atherosclerotic Cardiovascular Disease

A CALL TO ACTION

Atherosclerotic cardiovascular disease affects an estimated 10%–15% of adults over age 21.[1] Although overall mortality due to ASCVD has declined over the last few decades,[2] it is still the leading cause of morbidity and mortality in the US.[3] Statins are important tools to prevent and treat cardiovascular disease,[4] but in addition to medication, encouraging patients to adopt certain lifestyle habits can reduce the risk of ASCVD. Maintaining an exercise regimen of around 150 minutes per week of moderate physical activity, or 75 minutes of vigorous physical activity, is recommended, along with a healthy diet (vegetables, fruits, nuts, whole grains, vegetable or animal protein) and fewer processed meats, fried foods and refined carbohydrates.[5]

Only about half the patients who could benefit from cholesterol-lowering medicine are taking them, which has highlighted health disparities…

- **Despite an overall decrease in mortality, certain subpopulations (e.g., Hispanics) have seen an increase.[6]**
- **African Americans are less likely to receive a statin prescription than their White counterparts.[7]**
- **People who are South Asian have a higher risk of ASCVD than some groups.[8]**

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PREVENTION AND SCREENING ARE KEY

ASCVD is often asymptomatic, highlighting the importance of screening and risk assessment. Certain conditions and factors, including dyslipidemia, diabetes, hypertension and smoking, can increase the risk of developing cardiovascular disease. In addition to emphasizing a healthy lifestyle, the American College of Cardiology and the American Heart Association recommend the following for ASCVD prevention.[9]

AGES 20-39: Assess for risk factors every 4–6 years
AGES 40-75: Routinely assess for risk factors and **calculate 10-year risk**

Screening Tool
Click the icon to calculate your patient's 10-year ASCVD risk

<5%	**LOW RISK**	Emphasize healthy lifestyle changes	• Eat less red meat/fried foods and more fruits/vegetables • Be more physically active • Smoke less or not at all • Avoid or limit alcohol and caffeine • Manage stress
5% – <7.5%	**BORDERLINE RISK**	• Emphasize healthy lifestyle changes • Evaluate risk-enhancing factors and consider statin therapy based on results • Consider a CAC test to help reclassify risk for preventive interventions*	***Refer to the risk factor table below***
≥7.5% – <20%	**INTERMEDIATE RISK**		
≥20%	**HIGH RISK**	Immediate statin therapy is recommended	• High-intensity dosage (LDL-C Reduction ≥50%) recommended o High-intensity statins reduce ASCVD risk 30% more than moderate-intensity statins • Closely monitor side effects, increase/ decrease dosage as needed

Clinical Risk-Enhancing Factors to Assess	Parameters
Family history of premature ASCVD	Males <55 years; Females <65 years
Primary Hypercholesterolemia	LDL-C, 160-189 mg/dL [4.1- 4.8 mmol/L]; non-HDL-C 190-219 mg/dL [4.9-5.6 mmol/L]
Metabolic Syndrome	Increased waist circumference, elevated triglycerides [>175 mg/dL], elevated blood pressure, elevated glucose, and low HDL-C [<40 mg/dL in men; <50 in women mg/dL] are factors; tally of 3 makes the diagnosis
Chronic Inflammatory Conditions	Such as psoriasis, RA or HIV/AIDS
Chronic Kidney Disease	eGFR 15-59 mL/min/1.73 m2 with or without albuminuria, not treated with dialysis or kidney transplantation
Sex Specific Characteristics	History of premature menopause (before age 40) History of pregnancy-associated conditions that increase later ASCVD risk (pre-eclampsia)

TALKING TO YOUR PATIENTS ABOUT...

(click to learn more)

Medical Care and Treatment

Emotional and Mental Health

Physical Health and Fitness

MEDICAL CARE AND TREATMENT

- **Only 29% of people describe side-effects when taking statins, commonly muscle aches or weakness. These can be easily managed by altering dosage levels or the type of drug prescribed.**[10]
- **About half of patients discontinue statin therapy within the first year, according to multiple studies.**[11]
  - **Data show** a much higher risk of stroke, heart attack and even death within 4 years after stopping a statin.[12]
  - Discuss the specifics of statins with patients. Emphasize how the medication works "silently" to remove bad cholesterol from the blood.
- **Encourage patients to "know their numbers" and make sure they are in the LDL Safe Zone.**
  - 70% of high-risk patients never reach the LDL Safe Zone, **according to the Family Heart Foundation**.[13]
  - Refer to this **infographic** for cholesterol level zones.[14]
- **A few tips to increase medication adherence:**
  - Aim for once-daily dosing.
  - Use automated reminders.
  - Educate patients on the importance of taking medication on schedule.
- **Related topics to discuss with patients:**
  - New or worsening symptoms.
  - Medication issues or side effects, such as muscle aches, headaches, dizziness, issues with sleep, etc.
  - Risks of discontinuing medication.
  - Impact of medication without feeling effects.
  - Challenges to managing condition.
  - Advice or support with lifestyle changes.
  - Changes in appetite or weight.

EMOTIONAL AND MENTAL HEALTH

- **Studies show that psychological stress is associated with increased triglycerides, increased LDL and decreased HDL.[15]**
- **Education on mindfulness-based interventions and referral to stress management programs can help address patient stress and improve CVD outcomes.[16] Read more about mindfulness-based interventions here:**
  - **Meditation and Mindfulness: What You Need To Know | NCCIH (nih.gov)**
- **Related topics to discuss with patients:**
  - Sharing goals and realistic expectations.
  - Coping with heart disease and other conditions.
  - Feeling unusually sad or anxious.
  - Sources of stress.
  - Not getting enough sleep or sleeping too much.
  - Benefits of seeing a therapist or joining a support group.

PHYSICAL HEALTH AND FITNESS

- **Brief counseling integrating cognitive behavioral strategies, such as assessment of self-efficacy, goal-setting, and self-monitoring is associated with improvements in cardiorespiratory fitness.[17] Read more about evidence based recommendations for promoting physical activity here: Interventions to Promote Physical Activity and Dietary Lifestyle Changes for Cardiovascular Risk Factor Reduction in Adults | Circulation (ahajournals.org)**
- **The five A's model can help physicians structure brief and individually tailored counseling on physical activity:**
  - *Assess* the patient's current level of physical activity.
  - *Advise* patients with structured recommendations (i.e., engage in 30 minutes of moderate-/high-intensity physical activity 5+ days a week).
  - *Agree* with patients on a plan, through shared decision making and based on their state of change (precontemplation, contemplation, preparation, action/maintenance).
  - *Assist* patients by equipping them with resources or self-monitoring tools.
  - *Arrange* follow-up by scheduling a visit or a referral to additional counseling or intervention.
- **Related topics to discuss with patients:**
  - Difficulty doing daily tasks or chores.
  - Ability to work or care for family.
  - Activity level **(documented in a physical activity vital sign)**.[18]
  - Trouble standing up, recent falls or balance issues.

Read more about the five A's and counseling recommendations here: **Physical Activity Counseling | AAFP**

Screening Tool Table - *CAC = Coronary artery calcium. This test may not be covered by some insurance plans.
Source: **Wong, 2022**
Risk Factor Table - Source: **Wong, 2022, ACC/AHA, 2019, Maganti, 2019, Mayo Clinic 2021**

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