

# Primary Care Physician and Cardiologist Cascade Screening Behaviors and Treatment Recommendations for Patients with Familial Hypercholesterolemia: A Survey from the National Lipid Association

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## ABSTRACT

**Background:** Heterozygous familial hypercholesterolemia (HeFH) is an inherited disorder that leads to very high levels of LDL-C causing premature cardiovascular disease. Guidelines recommend cascade screening potentially affected relatives of an individual with HeFH, starting with children as young as 2 years old. Guidelines recommend statin therapy as first-line treatment for HeFH, starting in children at 8-10 years old.

**Methods:** The NLA surveyed 500 cardiologists (C) and 500 primary care physicians (not including pediatricians) in the United States who prescribe medications and have patients with baseline LDL-C  $\geq 190$ mg/dL.

**Results:** 54% of respondents would “always” cascade screen a first-degree relative of someone with HeFH, but 68% would monitor low-density lipoprotein cholesterol (LDL-C) in individuals with a “strong family history of premature atherosclerotic cardiovascular disease (ASCVD)”. 74% of respondents would screen a child of a patient with HeFH, but only 17% chose the correct age at which to screen. The most likely age to start a statin on a patient with known HeFH was 18-29 years old.

**Conclusions:** Many C and PCP do not routinely cascade screen for HeFH, nor screen for dyslipidemia based on family history. Most C and PCP surveyed were willing to screen pediatric patients, but few reported they would screen at or start treatment at ages recommended by guidelines. More education is needed.

## OBJECTIVES

- Measure cardiologist and primary care physician self-reported compliance with guidelines for cascade screening and timeline for initiation of statin therapy.

## METHODS

- The National Lipid Association surveyed 500 C and 500 PCP in the United States who care for patients with LDL-C  $\geq 190$  mg/dL but do not self-identify as a lipidologist.
- Pediatricians were not included in this survey, but physicians were asked if they provided any care to children < 18 years old.
- Lickert scales were used to measure likelihood of screening first-degree family members, as well as age at which cholesterol screening and statin treatment should begin for individuals with HeFH
- Among respondents indicating they would not screen individuals under 18 years of age, explanations were sought.

**Financial Disclosures:** This survey was supported in part by Sanofi-Regeneron. Dr. Wong has received research support from Amgen, Amarin, Novartis, and Esperion and is on the speaker's bureaus for Amarin and Esperion. Dr. Karalis has received honorarium from Esperion and Amarin and research support from Sanofi, Regeneron, and Amgen

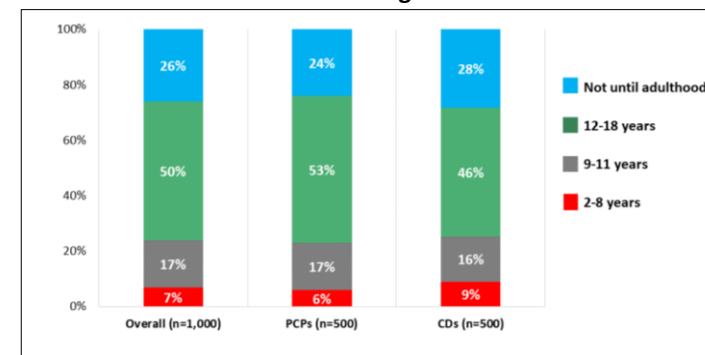
## RESULTS

- 54% would “always” recommend cascade screening for first-degree relatives of an individual with known HeFH, with no difference between C and PCP (p=0.94)
- 68% would monitor LDL-C in individuals with “strong family history of premature ASCVD or high cholesterol” (NOT confirmed HeFH) with most starting between 18-29 years old.
- 74% would screen a child of a patient with HeFH (see Table), but only 17% would screen a child between 2-8 years old (see Figure 1).
- Reasons why respondents would not screen a child are shown in Table 2.
- The most likely age to start a statin on an individual with HeFH was 18-29 years (Figure 2). Men were started earlier compared to women.

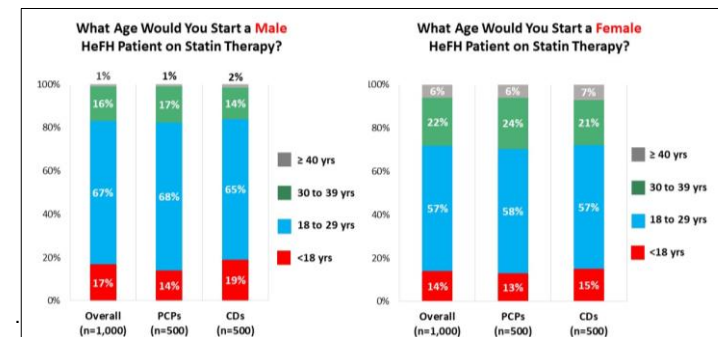
**TABLE: Reasons Given to Delay Checking Cholesterol Until Adulthood**

	All Respondents	Treat patients <18 years	Only treat patients >18 years	P value (<18 vs >18)
<b>n</b>	262	49	213	
<b>Not familiar with pediatric guidelines (%)</b>	75.6	57.1	79.8	0.0009
<b>Feel evidence is insufficient that screening children prevents ASCVD (%)</b>	19.5	42.9	14.1	<0.0001
<b>Their children are not my patients (%)</b>	25.2	22.5	25.8	0.62
<b>Feel there are “no safe treatment options” for high cholesterol in childhood (%)</b>	8.4	22.5	5.2	<0.0001

**FIGURE 1: Age at Which Physicians Recommend Starting Cascade Screening**



**FIGURE 2: Age at Which Statin Treatment Should Start with Known HeFH in Males and Females**



## CONCLUSIONS

- Many C and PCP do not routinely cascade screen for HeFH. They are slightly more likely to screen individuals with a strong family history of ASCVD or high cholesterol.
- Most C and PCP are willing to cascade screen children, but very few reported they would screen at or start treatment at ages recommend by guidelines.
- More education is needed to recognize, treat, and cascade screen for family members of individuals with HeFH.