

Treating High Cholesterol in People with Diabetes

治療糖尿病患者的高膽固醇

Toolkit No. 17 健康手冊（十七）

Keeping your cholesterol and other blood lipids (fats) under control can help you prevent diabetes problems. Diabetic dyslipidemia, a condition in which your blood lipids are off target, can lead to heart attack and stroke. For most people, treatment for off-target blood lipids includes both lifestyle changes, such as choosing foods wisely, and medication. **You can take steps to keep your blood lipids on target.**

控制膽固醇和其他血脂（脂肪）有助於預防糖尿病病症。糖尿病血脂異常是血脂值不在目標範圍內的一種病症，可能導致心臟病發作和中風。對大多數人來說，要將血脂回復到目標範圍內，可從改變生活習慣（如慎選食物）和服用藥物來著手。您可以採取步驟來讓血脂維持在目標值內。

What are the different kinds of blood lipids and what do they do? 血脂有哪些不同種類，作用各為何？

There are several kinds of lipids in your blood, and each type affects your health differently.

人體血液中有數種血脂存在，每種血脂對健康都有不同的影響。

- **LDL cholesterol** is sometimes called bad

cholesterol. This lipid can narrow or block your blood vessels. Blocked vessels can lead to a heart attack or a stroke. **Reaching your LDL target is the most effective way to protect your heart and blood vessels.**

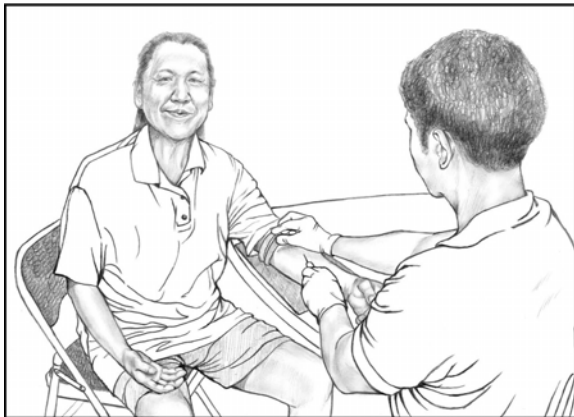
- **HDL cholesterol** is sometimes called good cholesterol or “helpful” cholesterol. This lipid helps remove deposits from the insides of your blood vessels and keeps them from getting blocked.
- **Triglycerides** are another kind of lipid. High triglyceride levels increase your risk of a heart attack or stroke.
- **LDL 低密度膽固醇**有時也被稱為是壞的膽固醇。這種血脂可能會使血管變窄或阻塞。而血管一阻塞，就可能導致心臟病發作或中風。**將 LDL 降至目標值，是保護心臟和血管最有效的方法。**
- **HDL 高密度膽固醇**有時被稱為是好的膽固醇或有益的膽固醇。這種血脂會將血管內的沈澱物移除，以免阻塞血管。
- **三酸甘油酯**則是另一種血脂。高三酸甘油酯濃度會增加心臟病發作或中風的風險。

How does diabetes affect my blood lipids?

糖尿病如何影響我的血脂？

Many people with diabetes have problems with their blood lipid levels—HDL (good cholesterol) levels that are too low and triglyceride levels that are too high. Also, in people with diabetes, LDL (bad cholesterol) particles are unusually small and dense, which can be especially harmful to blood vessels. This combination of factors means an increased risk of heart attack and stroke. But the good news is that taking steps to keep your lipids within the target range will lower your risk for these problems.

許多糖尿病患者的血脂濃度都異常，也就是 HDL（好的膽固醇）濃度太低，而三酸甘油酯濃度卻太高。此外，糖尿病患者的 LDL（壞的膽固醇）微粒極小，密度極高，對血管特別不利。這些因素都使得心臟病發作和中風的風險升高。但所幸的是，只要採取步驟來將血脂維持在目標範圍內，就可以降低這些風險。



Have your blood lipids checked at least once a year to help prevent or delay a heart attack or a stroke. 每年至少檢查一次血脂，來幫助預防或延緩心臟病發作或中風。

How will I know if my blood lipid levels are off target?

我要怎麼知道我的血脂濃度不在目標範圍內？

You won't know that your lipids are at dangerous levels unless you have a blood test to check your blood lipid levels. The American Diabetes Association (ADA) recommends that you have your levels checked at least once a year. Some people may need to be checked more often.

除非接受驗血檢查血脂濃度，否則您不會知道您的血脂濃度處於危險的範圍內。美國糖尿病協會 (ADA) 建議每年至少檢查一次血脂濃度。有些人可能需要做更多次檢查。

What are the recommended targets for blood lipids?

血脂的建議目標值為何？

See the chart below for targets suggested by the ADA. You can also record the results of your latest blood lipid check here.

下表是 ADA 建議的目標值。您也可以在下表中記錄最近血脂檢查的結果。

Type of Blood Lipid	My Results	ADA Targets
LDL cholesterol		below 100 mg/dl
HDL cholesterol		above 40 mg/dl (for men)
		above 50 mg/dl (for women)
Triglycerides		below 150 mg/dl

血脂種類	我的結果	ADA 目標
LDL 低密度膽固醇		低於 100 mg/dl
HDL 高密度膽固醇		高於 40 mg/dl (男性)
		高於 50 mg/dl (女性)
三酸甘油脂		低於 150 mg/dl

What treatments are recommended? 建議的治療有哪些？

Both lifestyle changes and medication help control blood lipids. Treatment differs from one person to the next. Work with your health care provider to find a treatment that's right for you.

改變生活習慣和服用藥物都有助於控制血脂。不過，治療會因人而異。請向醫師諮詢，找出適合自己的治療方式。

Lifestyle changes 改變生活習慣

Lifestyle changes can help control your blood lipids as well as your blood glucose and blood pressure levels. If your blood lipid levels are off target, you'll want to consider making lifestyle changes right away. Place a check mark next to steps you're willing to try.

改變生活習慣有助於控制血脂、血糖及血壓。如果您的血脂濃度不在目標範圍內，現在就可以考慮改變生活習慣。下面有幾個步驟可幫助您，請在想嘗試的步驟旁邊打勾。

Make wise food choices 慎選食物

- I'll eat less fat, especially saturated fat (found in fatty meats, poultry skin, butter, 2% or whole milk, ice cream, cheese, palm oil, coconut oil, *trans* fats, hydrogenated oils, lard, and shortening).
- I'll choose lean meats and meat substitutes (such as chicken without the skin, lean beef such as flank steak or chuck roast, boiled ham, or pork tenderloin).
- I'll switch to low-fat or fat-free dairy products (such as low-fat cheese and skim milk).
- I'll cut back on foods that are high in cholesterol (such as egg yolks, high-fat meat and poultry, liver and other organ meats, and high-fat dairy products like whole milk).
- I'll choose the kinds of fat that can protect my heart, such as olive oil, canola oil, corn oil, sunflower oil, and safflower oil. Nuts also have a healthy type of fat.
- I'll eat fish 2 or 3 times a week, choosing those high in heart-protective fat (such as albacore tuna, herring, mackerel, rainbow trout, sardines, and salmon).
- 少吃脂肪，特別是飽和脂肪（存在於肥肉、雞皮、奶油、2% 或全脂牛奶、冰淇淋、起司、棕櫚油、椰子油、反式脂肪、氫化植物油、豬油以及起酥油）。
- 選擇瘦肉和肉類替代製品（例如去皮雞肉、腹脅肉或肩部厚肉塊等瘦牛肉、熟火腿或豬柳）。
- 改吃低脂或無脂奶製品（例如低脂起司和脫脂牛奶）。
- 少吃含高膽固醇的食物（例如蛋黃、高脂肪肉類與家禽肉、肝臟與其他內臟肉類，以及像全脂牛奶等高脂奶製品）。
- 選擇可以保護心臟的脂肪種類，譬如橄欖油、菜籽油（Canola Oil）、玉米油、葵花油、紅花油（Safflower Oil）。堅果類也含有健康的脂肪種類。

- 每週吃魚 2 或 3 次，選擇的魚類應富含保護心臟的脂肪（例如青花鮭魚、鯉魚、青魚、虹鱒魚、沙丁魚及鮭魚）。

Lose weight or take steps to prevent weight gain

減重或想辦法避免增加體重

- I'll cut down on calories and fat.
- I'll try to be more physically active than I am now.
- 減少熱量與脂肪攝取。
- 試著增加現在的運動量。

Be physically active

多運動

- Before I start a new routine, I'll talk with my doctor about safe activities for me.
- I'll try to do a total of about 30 minutes of aerobic exercise, such as brisk walking, most days of the week. If I'm just starting out, I'll begin with 5 minutes a day and gradually add more time.
- 在開始運動前，先向醫師諮詢，找出安全的運動。
- 盡量一週內每天試著做大約 30 分鐘像快走等有氧運動。如果才剛開始做運動，會從一天做 5 分鐘開始，再逐漸增加時間。

Be careful with alcohol

飲酒需適量

- I'll talk with my health care team about whether it's wise for me to drink alcohol.
- If and when I drink alcoholic beverages, I'll limit myself to no more than 1 serving (for women) or 2 servings (for men) daily.

- 向醫護人員諮詢，確定自己是否適合喝酒。
- 飲酒時，最多一天 1 杯（女性）或一天 2 杯（男性）。

Quit smoking

戒煙

- I'll talk with my health care team about methods that can help.
- 詢問醫護人員，看是否有幫助我戒煙的方法。

Stay on target with your blood glucose (sugar)

將血糖值維持在目標範圍內

- I'll help lower my LDL cholesterol and triglycerides by keeping my blood glucose under control with meal planning, physical activity, and medication (if needed).
- 藉由飲食計劃、運動和藥物（視需要）來控制血糖，以降低 LDL 低密度膽固醇與三酸甘油酯。

Medications

藥物

Several types of medication are available. Not everyone takes the same blood lipid medication, and many people take more than one kind. The medications you take will depend on your blood lipid levels and other factors such as cost. Lifestyle changes along with medications can help you reach your targets. Some medications can help prevent heart attacks and strokes.

治療血脂異常的藥物有幾種。但每個人所服用的抗血脂異常藥物不一定相同，也有

許多人服用一種以上的藥物。要服什麼藥物，需視血脂濃度以及其他像是成本等因素而定。改變生活習慣和服用藥物雙管齊下，可以幫助您達到目標。有些藥物可幫助預防心臟病發作和中風。

- **Statins**—These medications lower LDL cholesterol, boost HDL levels, and lower triglyceride levels. Studies have shown that they are the most effective medication for lowering LDL cholesterol.
- **Fibric acid derivatives, also called fibrates**— These medications lower triglycerides and raise HDL levels. They may either lower, raise, or not change LDL cholesterol.
- **Nicotinic acid, also called niacin**— This medication lowers triglycerides, raises HDL levels, and lowers LDL cholesterol.
- **Cholesterol absorption inhibitors**— This type of medication lowers LDL cholesterol and triglycerides and raises HDL levels.
- **Bile acid sequestrants**— These medications lower LDL cholesterol and can raise HDL levels. They either have no effect on triglycerides or, in some cases, they can raise triglyceride levels.
- **史他汀類 (Statins)** — 這類藥物能降低 LDL 低密度膽固醇、提高 HDL 濃度並降低三酸甘油酯濃度。研究指出，這類藥物是降低 LDL 低密度膽固醇最有效的藥物。
- **纖維酸衍生物 (Fibrates)** — 這類藥物能降低三酸甘油酯並提高 HDL 濃度。對 LDL 低密度膽固醇的效果則不一定，可能降低、升高或沒有改變。
- **菸鹼酸 (Niacin)** — 這種藥物能降低三酸甘油酯、提高 HDL 濃度並降低 LDL 低密度膽固醇。
- **膽固醇吸收抑制劑** — 這種藥物能降低

LDL 低密度膽固醇和三酸甘油酯，同時提高 HDL 濃度。

- **膽汁酸隔離劑** — 這類藥物能降低 LDL 低密度膽固醇，並提高 HDL 濃度。對三酸甘油酯則可能沒有效果，有時可能會提高三酸甘油酯的濃度。



American Diabetes Association 1-800-DIABETES
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