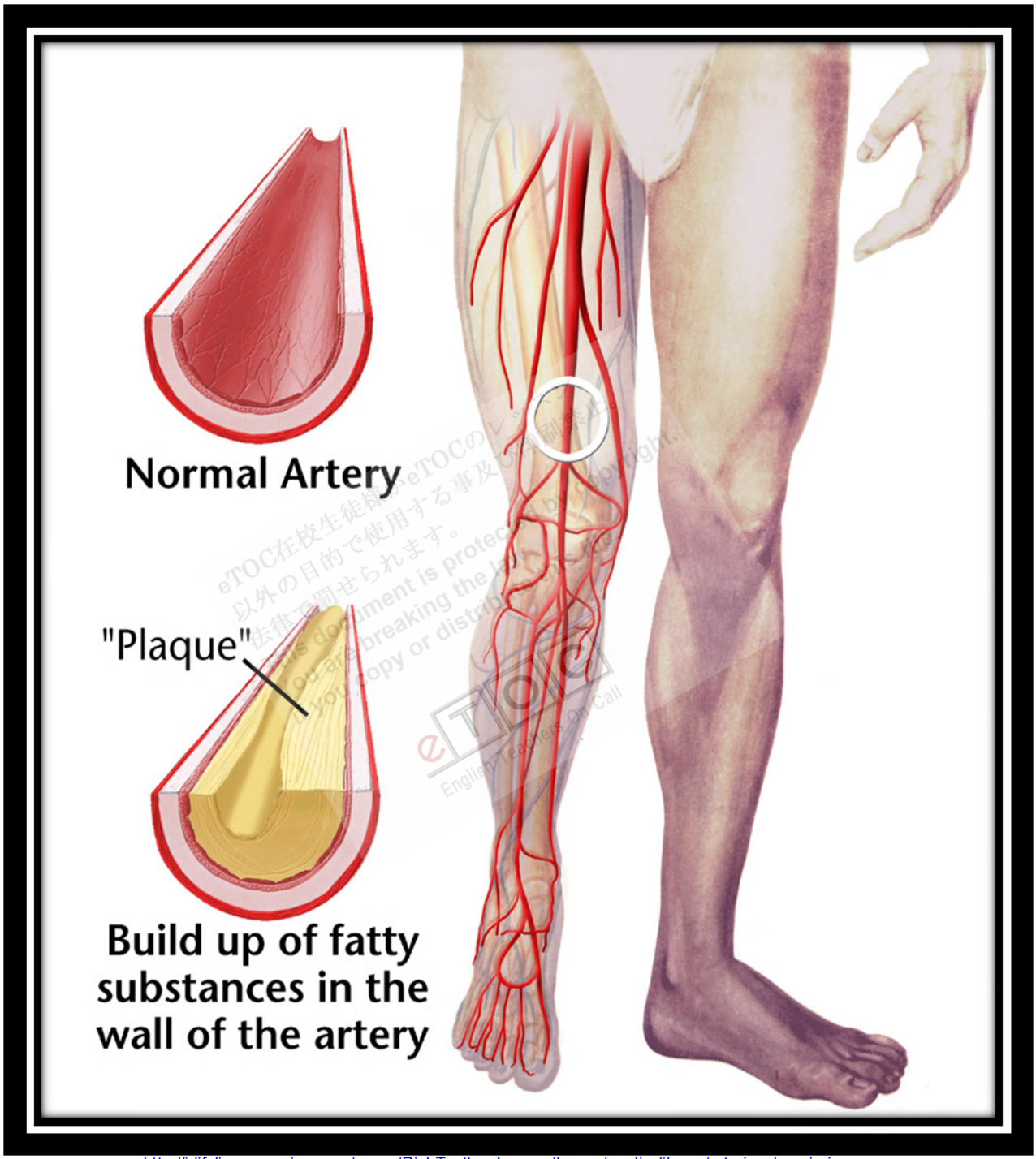
Non-atheromatous Arteriosclerosis

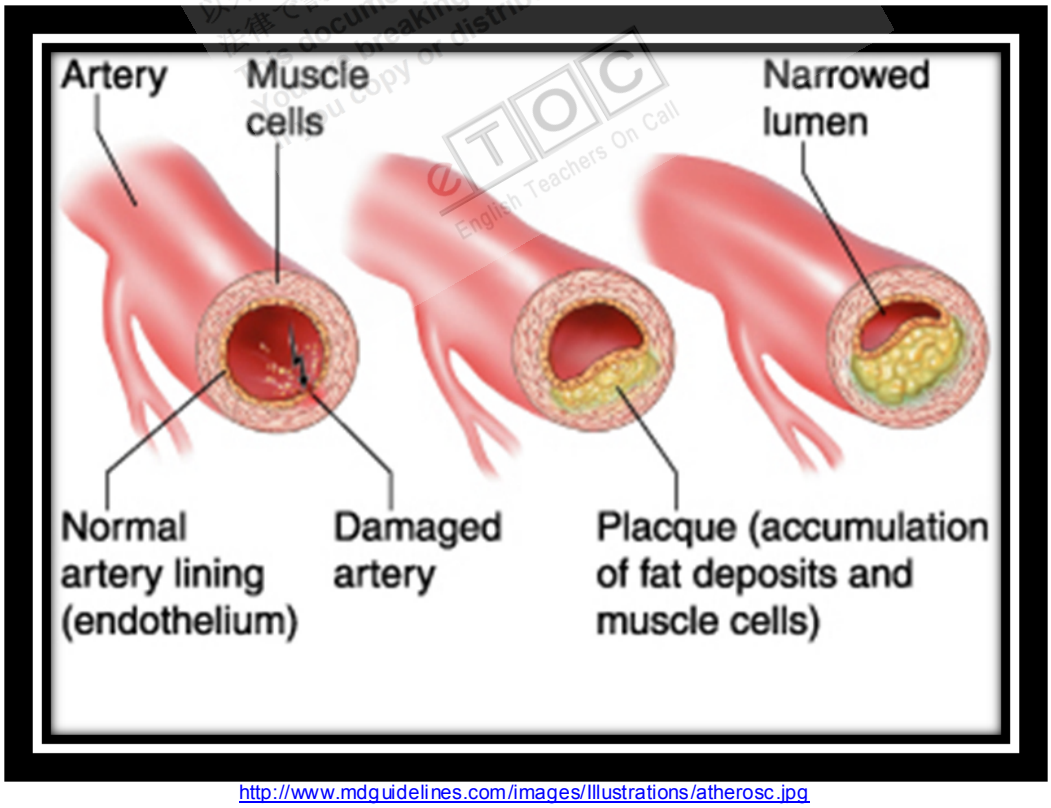


http://i.lifelinescreening.com/en-us/RichTextboxImages/Image/media-library/arteriosclerosis.jpg

Non-atheromatous arteriosclerosis is age-related fibrosis in the aorta and its major branches.

Non-atheromatous arteriosclerosis causes intimal thickening and weakens and disrupts the **elastic lamellae**. The smooth muscle (media) layer atrophies, and the **lumen** of the affected artery widens (becomes **ectatic**), predisposing to aneurysm or dissection. Hypertension is a major factor in development of aortic arteriosclerosis and aneurysm. Intimal injury, **ectasia**, and **ulceration** may lead to thrombosis, embolism, or complete arterial occlusion.

Arteriolosclerosis affects distal arteries in patients with diabetes or hypertension. Hyaline arteriolosclerosis affects small arteries and arterioles in patients with diabetes; typically, **hyaline thickening** occurs, the arteriolar wall **degenerates**, and the lumen narrows, causing **diffuse ischemia**, especially in the kidneys. **Hyperplastic arteriolosclerosis** occurs more often in patients with hypertension; typically, laminated, concentric thickening and luminal narrowing occur, sometimes with **fibrinoid** deposits and vessel wall necrosis (**necrotizing arteriolitis**). Hypertension promotes these changes, and arteriolosclerosis, by increasing arteriolar rigidity and increasing peripheral resistance, may help sustain the hypertension.



http://www.mdguidelines.com/images/Illustrations/atherosc.jpg

Mönckeberg arteriosclerosis (**medial calcific sclerosis**) affects patients > 50; age-related medial degeneration occurs with focal calcification and even bone formation within the arterial wall. Segments of the artery may become a rigid calcified tube without luminal narrowing. The diagnosis is usually obvious by plain x-ray. This disorder is clinically important only because it can greatly reduce arterial compressibility, causing extremely but falsely elevated BP readings.

Reference: http://www.merckmanuals.com