Distribution of other Lipoproteins

Step 1: Liver cells synthesize VLDLs:
- for discharge into bloodstream

Step 2: Lipoprotein lipase removes many triglycerides from VLDLs:
- leaving IDLs

Triglycerides are broken down:
- into fatty acids and monoglycerides

Step 3: When IDLs reach liver:
- additional triglycerides are removed
- protein content of lipoprotein is altered
- LDLs are created

LDLs are transported to peripheral tissues to deliver cholesterol

Step 4: LDLs leave bloodstream through capillary pores:
- or cross endothelium by vesicular transport

Step 5: In peripheral tissues:
- LDLs are absorbed through receptor-mediated endocytosis

Amino acids and cholesterol enter the cytoplasm

Step 6: Cholesterol not used by cell
- diffuses out of cell

Step 7: Cholesterol reenters bloodstream:
- is absorbed by HDLs and returned to liver

Step 8: In the liver:
- HDLs are absorbed
- cholesterol is extracted

Recovered cholesterol is used:
- in synthesis of LDLs
- in excreted in bile salts

Step 9: Free HDLs are released into bloodstream:
- travel into peripheral tissues
- absorb additional cholesterol