

Disorders of Lipid Metabolism

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Appendix

Summary of the Most Consistent Features of the Fredrickson Classification of the Hyperlipidaemias as Described in the WHO Memorandum of 1970¹

It is not possible in a *simple* table to indicate the variability of the classes. This table is given to enable the reader to refer to the *major* features of the Fredrickson classification, to which most speakers refer, without the inconvenience of having to consult a separate publication. Not all the speakers recommend this classification, some preferring a simpler scheme (see paper by Dr Lewis).

Fredrickson Type	Chylomi- crons (Immobile) Mainly Tri- glyceride	LDL (β- mobility) Mainly Chol- esterol	VLDL (pre- β mobility) Mainly Triglyceride	'Float- ing' β (VLDL)	Plasma Chol- esterol	Plasma Tri- glyceride	Fasting Plasma on Standing	Incidence	Clinical Features		Commoner Causes of Secondary Hyperlipidaemia ²
									General	Xanthomas	
I Hyperchylomicronaemia	+		N or slightly +		Usually +	+	Clear with cream	Rare	Hepato- splenomegaly Attacks of abdominal pain (including pancreatitis)	Eruptive	Diabetes Dysglobulinaemia
IIA Hyper-β-lipo- proteinaemia		+			+		Clear	Second most common	Arterial disease	Tendinous Tuberous Xanthelasma Planar	Hypothyroidism Nephrosis Dysglobulinaemia Biliary obstruction
IIB Hyper-β-lipo- proteinaemia (with pre-β)		+	+		+	+	Clear or slightly milky				
III 'Broad' or 'floating' β-lipo- proteinaemia	N or slightly +			+	+	+	Milky with a little cream	Rare		Tuberous Tubero- eruptive Planar Xanthelasma	Dysglobulinaemia
IV Hyper-pre-β- lipoproteinaemia			+		N or +	+	Clear or milky (no cream)	Most common	Arterial disease Attacks of abdominal pain (including pancreatitis)	Tubero- eruptive	Diabetes Nephrosis Dysglobulinaemia Alcohol, gout Hypothyroidism Pancreatitis
V 'Mixed' hyper- chylomicronaemia + hyper-pre-β- lipoproteinaemia)	+		+		+	+	Milky with cream	Rare	Attacks of abdominal pain	Eruptive	Diabetes Nephrosis Dysglobulinaemia Pancreatitis

¹Beaumont, J. L., Carlson, L. A., Cooper, G. R., Fejfar, Z., Fredrickson, D. S., and Strasser, T. (1970). Classification of Hyperlipidaemias and Hyperlipoproteinaemias. Bulletin of the WHO, 43, 891.

²Other causes are given by Dr Chait
N = Normal level; + = raised level.

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