Table 36A. Expected Liver Span of Infants and Children

Age (yr)	Boys		Girls	
	Mean Estimated Liver Span	Standard Error of Mean	Mean Estimated Liver Span	Standard Error of Mean
6 mo	2.4	2.5	2.8	2.6
1	2.8	2.0	3.1	2.1
2	3.5	1.6	3.6	1.7
3	4.0	1.6	4.0	1.7
4	4.4	1.6	4.3	1.6
5	4.8	1.5	4.5	1.6
6	5.1	1.5	4.8	1.6
8	5.6	1.5	5.1	1.6
10	6.1	1.6	5.4	1.7
12	6.5	1.8	5.6	1.8
14	6.8	2.0	5.8	2.1
16	7.1	2.2	6.0	2.3
18	7.4	2.5	6.1	2.6
20	7.7	2.8	6.3	2.9

From Lawson EE, Grand RJ, Neff RK,et al. *Am J Dis Child* 1978;132:475, with permission.

Table 36B. Review of Liver Function Tests

I. LIVER FUNCTION TESTS

AP	AST	ALT	GGT	5 = NUC
Liver	Hepatocyte	Hepatocyte	Placenta	Biliary
Bone	Muscle	Muscle	Pancreas	
Intestine			Kidney	
Placenta			Bile	
Tumors			Ducts	
			Choroid	

II. "TRUE'' LIVER FUNCTION TESTS
Prothrombin time
Albumin
Bile acids and salts
Factor II, V, VII, IX, X
Vitamin k-dependent factors: II, VII, IX, X

III. LIVER FUNCTION TESTS
Clinical pearls for daily use:

	ALKALINE PHOSPHATASE	γ-GGT
Low	Zinc deficiency	Bile acid deficiency
	Wilson disease	
	Cystic fibrosis	
High	See other List	Cholestasis, ICP

IV. LIVER FUNCTION TESTS
Clinical pearls for daily use: Elevated transaminases and normal bilirubin, GGT, and alkaline phosphatase

Table 36C. Clinical Disease States and Age of Presentation of Hepatomegaly

Age	Clinical Disease States
Newborn (Birth–2 mo)	Intrauterine and intrapartum acquired infection (TORCH, syphilis, other)
	Erythroblastosis fetalis
	Neonatal hepatitis, α_1-antitrypsin, Alagille syndrome
	Bitiary atresia
	Congestive heart failure
	Congenital paroxysmal atrial tachycardia
	Sepsis
Infant (2–12 mo)	Cystic fibrosis
	Metabolic disease: glycogen storage, α_1-antitrypsin deficiency, galactosemia, tyrosinemia, hereditary fructose intolerance, other
	Neonatal hepatitis, hepatitis B
	HIV infection (AIDS)
	Histiocytosis
	Malnutrition
	Tumors (intrinsic, metastatic)
	Cholelithiasis
	Choledochal cyst
Young child (1–6 yrs)	Viral hepatitis
	Drug-toxic hepatitis
	Parasitic
	Tumor
	Leukemia, lymphoma
Older child, adolescent (7–20 yrs)	Viral hepatitis
	Drug-toxic hepatitis
	Wilson disease
	Chronic active hepatitis
	Congenital hepatic fibrosis
	Focal nodular hyperplasia, adenoma
	α_1-Antitrypsin deficiency
	Reye syndrome
	Sickle cell anemia
	Cholelithiasis
	Juvenile rheumatoid arthritis, lupus erythematosus, sarcoidosis
	Leukemia, lymphoma
	Gonococcal perihepatitis
	Cystic fibrosis
	Diabetes

Adapted from Walker, WA, Mathia RK. *Pediatr Clin North Am* 1975;22:929.