

Table 1. *Experimental conditions and metabolic states*

Expt	Nutritional state	Additions to the perfusate	Period of infusion	Metabolic state of the liver at freeze fixation (60 min of perfusion)
F	fed rat	substrate-free perfusion	—	glycogenolysis, glycolysis from glycogen
F-S	fed rat	glucose lactate pyruvate	5 mM 2 mM 0.2 mM	0–60 min 'resting state' diminished glycogenolysis and glycolysis
F-E	fed rat	ethanol	2 mM	36–60 min mitochondrial oxidation of reducing equivalents derived from cytosolic ethanol oxidation, highly reduced state of NAD systems, inhibition of glycolysis
F-Am	fed rat	amytal	0.6 mM	48–60 min inhibition of respiratory chain, decreased 'energization' of mitochondrial membrane, high rates of glycolysis
F-Dnp	fed rat	dinitrophenol	0.03 mM	54–60 min uncoupling of oxidative phosphorylation, decreased 'energization' of mitochondrial membrane, high rates of glycolysis
F-Catr	fed rat	carboxyatractyloside	0.06 mM	36–60 min inhibition of adenine nucleotide transport, increased 'energization' of mitochondrial membrane, high rates of glycolysis
H	24-h starved	substrate-free perfusion	—	oxidation of endogenous substrates (fatty acids), ketogenesis
H-L	24-h starved	lactate	2 mM	36–60 min gluconeogenesis from lactate, increased respiration, decreased ketogenesis
H-D	24-h starved	dihydroxyacetone	2 mM	36–60 min glucose and lactate production from triose, increased respiration, decreased ketogenesis
H-G	24-h starved	glucose plus insulin	25 mM 5 U/l	30–60 min glycolysis from exogenous glucose, glycogen synthesis?