

Energy systems summary

CP system	Lactate system	Aerobic system
Anaerobic	Anaerobic	Aerobic
Very rapid	Rapid	Slow
Chemical energy	Glycogen	Glycogen and fat
Very limited ATP	Limited ATP	Unlimited ATP
No fatiguing waste products (creatine)	Lactic acid Fatiguing by-product	No fatiguing waste products (carbon dioxide and water)
Short duration (0–10 seconds)	1–3 minutes of intense activity	Long duration
Very high intensity (95–100% max. effort)	High intensity (60–95% max. effort)	Low to moderate intensity (up to 60% max. effort)
Quick recovery (30 seconds to 5 minutes)	20 minutes to 2 hours (breakdown of lactic acid)	Time to eat and drink (to replenish fuel stores)