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### Key points

- This review presents an evidence base for commonly expected changes of strength and power in elite rugby league at various phases of a season and over multiple seasons.
- Based on the collective findings following the pre-season, a greater increase in lower body strength was observed when players lifted predominantly heavier loads ( $\geq 80\%$  1 RM) during resistance training sessions.
- The undulating pattern of strength (higher-load) and power (lower-load) training sessions appears to maintain upper body strength and power throughout a competitive season.
- Based on the findings from three of the longitudinal studies, a large increase in upper body strength and power following multiple (four - ten) seasons of wave-like resistance training programming in elite rugby league would be expected.
- There is no literature to date examining the effect of the off-season, consequently what it is not yet clear is the impact this time away from structured training has on strength and power in elite rugby league.

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