

#18 Supercompensation — Why Training Actually Works

The Engine Behind Every Training Gain

Every time a horse gets fitter from training, **supercompensation is the mechanism doing the work**. It is not magic — it is a four-phase biological cycle that every trainer must understand, because the timing of your next session decides whether training builds fitness or destroys it.

Phase 1 — The Work: You apply a training load. The horse gets tired. Performance drops. **Phase 2 — Recovery:** The body repairs itself back to its previous level. **Phase 3 — Supercompensation:** The body **overshoots the previous baseline**, building slightly more capacity than before. **Phase 4 — If you wait too long:** The extra fitness fades back down. Miss the window and you get no gain from the session you just did.

KEY POINTS

- Training only builds fitness when the **next session lands at Phase 3 — the peak**
- Too soon = arriving in Phase 1 (still fatigued) — the horse trains backwards
- Too late = arriving in Phase 4 — the window closed, the gain evaporated
- Different systems recover at different rates — muscles faster, tendons/bones slower
- **Every rest day is Phase 2 and 3 happening** — it is not lost training time

TIMING THE WINDOW

For aerobic sessions: supercompensation peaks roughly **36–48 hours** after the session. For very hard gallops: may take **72–96 hours**. Younger or less fit horses need longer. There is no single answer — watch the horse.

THE COMPOUNDING EFFECT

Each correctly timed session builds on the last. A horse trained with correct timing for 8 weeks accumulates **significantly more fitness** than one trained with the same volume but poor timing. Volume is not the variable — **timing is**.

STABLE QUESTION

"Think about your hardest training day this week. How long did you give the horse to recover before the next hard session — and was that based on science or habit?"

TRAINER TAKEAWAY

Supercompensation means your job is not just to train the horse — it is to **time the next session correctly**. A slightly tired horse that works hard gets slower. A recovered horse that works hard gets faster. The difference is not the session — it is the recovery between sessions.

CONNECTS TO →

Monday #19: Rest IS training — Supercompensation only completes if adequate rest is given. These two concepts are one system.

#19 Rest IS Training — Recovery Is Not Doing Nothing

Active Recovery — The Other Half of Every Training Programme

Most trainers think of training as the thing that happens on the track. But the body only gets fitter **during the recovery period** — not during the session itself. The session is just the stimulus. **Rest is where the adaptation actually happens.**

Without adequate recovery, a predictable chain of problems builds up: cell waste products accumulate in muscle tissue, the nervous system cannot fully recharge, hormones and enzymes that drive adaptation stay suppressed, and glycogen is not fully replenished. **More training on top of incomplete recovery does not build fitness — it erodes it.**

KEY POINTS

- Fitness is built **between sessions, not during them** — rest is where adaptation happens
- Incomplete recovery before the next hard session actively **reduces fitness over time**
- **Active recovery** (very light walking or slow trot) clears waste products faster than complete rest
- Glycogen replenishment takes **24–48 hours** after a hard session — skip this and the tank runs dry
- A horse that is 'always working' is often a horse that is **never fully adapting**

ACTIVE VS COMPLETE REST

Very slow walking and light trotting on recovery days **pumps blood through muscles** without adding load, flushing waste products and delivering repair nutrients. This is faster than sitting in a stable. **Active recovery is a training tool.**

THE OVERWORK TRAP

Trainers who cut rest days when a horse seems 'not improving' often make things worse. **Performance regression despite more work** is almost always the sign of insufficient recovery — the body is in debt, not in need of more stimulus.

STABLE QUESTION

"What does a 'rest day' look like for your horses right now — and does it actually allow full recovery, or does it just mean no gallop while everything else stays the same?"

TRAINER TAKEAWAY

Schedule your recovery days with the same intention as your hard days. An active recovery session — a 20-minute slow canter or hack — is not a wasted day. It is **the day the horse gets fitter from the session two days ago**. Rest is training. Plan it that way.

CONNECTS TO →

Monday #18: Supercompensation only completes if adequate rest is given — these two concepts are one system. |

Wednesday #29: Rest is the fourth of the Four Training Variables — adjusting it changes everything about the session's effect.