

GRAPPLESTRONG

STRENGTH & CONDITIONING

RECOVERY

MAXIMISE IT

How to maximise recovery to optimise your training.
Adapt, recover, and re-energise for the next session.

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WHY THIS BOOK

RECOVERY IS WHERE YOU GET BETTER

You're an athlete. We know you don't want to spend too much time reading a book — so we'll keep this short, without all the fancy science.

You have a goal. You want to win more, get stronger, get better. All training takes time before we see results — and some training even leaves us worse in the short term. That's a big part of the improvement process.

Recovery is where we get better. We adapt, we recover, and we re-energise for the next session. You should find the most optimal way to train, and the most optimal way to recover — one is pointless without the other.

THE AIM

To arm you with the knowledge to get the most out of both your training and your recovery.

01

SECTION 01

FATIGUE & RECOVERY

- WHAT FATIGUE IS, AND HOW TO SPOT IT
- WHAT RECOVERY REALLY MEANS
- MAXIMUM RECOVERABLE VOLUME

01 / FATIGUE & RECOVERY

UNDERSTANDING FATIGUE

Fatigue accumulates from all sorts. **Training:** volume, intensity, density, frequency, impact. **Lifestyle:** physical tasks, sleep deprivation, poor nutrition, psychological stress, illness, alcohol and drugs.

DETECTING FATIGUE

Recent nutrition	Under-eating calories, carbs and protein can greatly blunt the body's ability to recover.
Psychological stress	Arguing with a loved one, or missing sleep. Identify it quickly — bad days become bad weeks. Adjust training accordingly.
Physical tasks	If you've been working physically for a long time, you may need to adjust your training to your tasks.
Coordination & learning	If you can't learn new techniques, or things feel awkward, you may be fatigued. You can often train through this.
Recent training load	A new PB or a massive wrestling session has a knock-on effect. Be aware and auto-regulate.

01 / FATIGUE & RECOVERY

RECOVERY, ADAPTATION & MRV

Recovery, in simple terms: reaching a state where your body is repaired and able to perform overloading training again. Recovery and adaptation come together — **adaptation** is the improvement of a system above its normal baseline after overloading training, making it more capable than before.

ADAPTATION SUPPRESSION

Ibuprofen and cold therapy can promote recovery but blunt adaptation. Be aware of when to prioritise pure recovery. A combat athlete with a week of drills, sparring, conditioning and weights will have to sacrifice some adaptation for recovery.

MRV — MAXIMUM RECOVERABLE VOLUME

MRV is the most you can train and still recover. You need to figure this out for yourself: how many times can you train per week and still recover? Everything that follows helps you raise that ceiling.

01 / FATIGUE & RECOVERY

THE RECOVERY STRATEGIES

We'll take you through the most effective to least effective recovery methods. Don't fall for the chancers trying to sell you magic pills and potions — they'll likely cause you more stress than any actual recovery.

STRATEGY	WHAT IT COVERS
01 — Train Within MRV	Only train as much as you can actually recover from.
02 — Passive Recovery	Sleep, relaxation, stress management, planned rest.
03 — Nutrition	Consuming enough calories and the appropriate macros.
04 — Active Recovery	Deloads, rest phases and light sessions.
05 — Therapeutic & Supplemental	Social support, therapy, compression garments, thermal treatments.

PRIORITIES FIRST

Work on the most important modalities first. Pour everything into sleep and you'll see a huge benefit. Sleep badly but nail 4 litres of water, and you'll still feel rough. Be smart.

02

SECTION 02

PASSIVE RECOVERY

- SLEEP – YOUR MOST POWERFUL TOOL
- RELAXATION & STRESS MANAGEMENT
- PLANNED REST

02 / PASSIVE RECOVERY

SLEEP

This is your most powerful recovery tool. No drug, no pre-workout and no carb will ever let you bypass the need for sleep and relaxation.

Everyone is trying to sell you cryotherapy, fancy drinks or a new recovery trend. Nothing beats a relaxing bath or a good night's sleep. Try to be in bed for 10 hours and sleep for 8 if possible.

GETTING PROPER SLEEP

- Be consistent — a consistent sleep schedule, and a wind-down routine 30–45 minutes before bed.
- Avoid training late, caffeine after 12–1pm, and alcohol before bed.
- Your bedroom is for two things only — sleep and sex. No eating, TV or working in bed.
- Keep the room quiet, dark and cool.
- If you can't sleep within 20 minutes, get up and read, stretch or take a bath.
- Sleep in now and then, and take short naps of 20–30 minutes.

THE CAFFEINE NAP

Have a coffee, then take a 20–30 minute nap — you should wake up ready to go.

02 / PASSIVE RECOVERY

THE 10-3-2-1-0 RULE

A simple countdown to a better night's sleep — work backwards from the time you want to be asleep.

10 hrs	Before bed — no more caffeine.
3 hrs	Before bed — no more food or alcohol.
2 hrs	Before bed — no more work.
1 hr	Before bed — no more screen time. Phones, TVs and computers off.
0	The number of times you'll need to hit snooze in the morning.

02 / PASSIVE RECOVERY

RELAXATION, STRESS & REST

RELAXATION

Relaxation lowers heart rate and blood pressure, reduces stress and catabolic hormones, improves mood, and decreases anxiety and perceived fatigue. It's simple — avoid anything stressful for a set period. Aim for one planned hour in your day, or during your wind-down, and/or two hours post-exercise.

Find what relaxes *you*: eating a meal, reading, TV, music, socialising, breathing or meditation, time with friends, family or pets. The simplest version — sit on the couch, eat a meal and watch TV for an hour.

STRESS MANAGEMENT

This one is personal. We can control our behaviours, not so much our emotions — it's how we react. Letting go is a skill you can practise. Find good friends, find a good coach, keep your ego in check and keep a positive mindset.

PLANNED REST

This doesn't mean locked in the house doing nothing. Sometimes you just need a day off the mat or out of the gym — go to the beach, take a hike. Keep these days enjoyable, low-stress and non-training.

03

SECTION 03

NUTRITION FOR RECOVERY

- CALORIES - 60-70% OF RECOVERY
- CARBS, PROTEIN, FAT & TIMING
- HYDRATION & SUPPLEMENTS

03 / NUTRITION FOR RECOVERY

CALORIES

We're looking purely at nutrition for recovery here — not body composition or performance. Calories affect around **60–70% of the recovery process**. Your battered body needs rebuilding, and as long as you hit calories to maintain bodyweight, recovery can remain unhindered.

Generally, the more you eat, the faster and more completely you recover. But we're not sumo wrestlers — athletes also want lean body composition, so you need to know when to eat for recovery and when to eat for body comp.

Recovery is the priority	Eat slightly above maintenance. If you fight in a weight class and are 4kg off, don't gain the full 4kg — eat slightly over maintenance and gain ~2kg.
You don't need to lose weight	Stay away from calorie deficits as much as possible. If you're already lean, under-eating will wreck your recovery.
You have fat to lose	Lose it with as many calories as you can, at a slower rate — around 1% bodyweight per week or less. Don't rush it.
When to lose fat	Cut weight as early as possible from competition. Cutting too close will wreck your recovery and performance when you need them most.

03 / NUTRITION FOR RECOVERY

CARBOHYDRATES

Carbs have the largest effect on recovery after calories. They do so much for us — even suppressing stress hormone release, so they support psychological recovery as well as physical. If recovery is your aim: calories first, carbs second.

How many carbs you need depends on your bodyweight, your training volume and your daily activity. Here's a simple way to scale it to you.

TRAINING DURATION	CARBS PER LB OF BODYWEIGHT
Under 1 hour	1 gram
2 hours	2 grams
3–4 hours	3 grams
4+ hours / high-level endurance	4 grams

DON'T FEAR CARBS

Carbs do not make you fat. On a fat loss diet, don't cut them — it harms recovery, reduces anabolic signalling and risks muscle loss. When recovery is a priority, lean towards a bit more carbs. They fuel everything — from training to walking the dog.

03 / NUTRITION FOR RECOVERY

PROTEIN, FAT & TIMING

Carbs refuel us — protein rebuilds us. Under-dosing protein increases the chance of injury. Carbs are the quick recovery tool; protein is your long-term investment.

Protein	Aim for 1g per lb of bodyweight. You honestly don't need more — extra protein doesn't mean more muscle.
Fat	Aim for ~0.3g per lb of bodyweight. Hit carbs and protein first, then fill remaining calories with fat.
Carb timing	Consume most carbs post-training — trained muscles take up glucose more readily. Training over 1.5–2 hours? Have carbs intra-session. Spread them across the day, mostly after training.
Protein timing	Consume protein every 3–5 hours across 4–6 servings. 200g daily over 5 servings = 40g per serving.
Fat timing	Avoid fat near the training window — it slows carb digestion. Limit it post-training if you train again later that day.

03 / NUTRITION FOR RECOVERY

FOOD QUALITY, HYDRATION & SUPPLEMENTS

FOOD COMPOSITION

Protein from animal sources — meat, dairy, eggs, poultry. Carbs: unprocessed (veg, fruit, whole grains) away from training; processed (breads, sports drinks) around training. Fats from fatty meats, butter, olive oil.

HYDRATION

Hydration is critical, and our dehydration signals lag — so stay hydrated throughout the day. Aim for 2–4 litres a day, or 1 litre per 25kg of bodyweight.

SUPPLEMENTS

It's tempting to seek an easy pill or powder, but nothing beats good planning, good sleep and excellent nutrition. A few that genuinely help:

WHEY PROTEIN

Very fast digesting — great post-exercise.

CASEIN PROTEIN

Slow digesting — before sleep, or if you can't eat for 3–5 hours.

CARB POWDERS

Help you get carbs in faster around training.

CREATINE

Well-evidenced for performance and recovery.

04

SECTION 04

ACTIVE RECOVERY

- DELOADS & VOLUME MANIPULATION
- ACTIVE REST PHASES
- LIGHT SESSIONS

04 / ACTIVE RECOVERY

DELOADS & VOLUME

Active recovery is modifying your training across your phases. It's never as powerful as passive recovery — but a well-designed programme should include it.

DELOADING

A deliberate reduction in training volume, normally planned after a period of over-reaching. It reduces fatigue and prepares you for the next phase. Apply it once every 3–6 weeks, reducing to roughly 40–60% of your normal training week.

WHAT A DELOAD GIVES YOU

Reduced perception of fatigue, recovered performance, less joint and muscle pain, replenished glycogen, restored hormonal balance, and renewed motivation.

VOLUME MANIPULATION

You can't train at the same volume and intensity all the time — like a car, you can't keep the accelerator floored. Cycle through phases: a hypertrophy / work-capacity block, into a strength block, into a power / speed block.

04 / ACTIVE RECOVERY

ACTIVE REST & LIGHT SESSIONS

ACTIVE REST

Active rest is where you engage in any form of training you desire, while maintaining a reasonable bodyweight, lean mass and work capacity. These phases usually come after long periods of hard training — after a season you might take a 1–2 week break, then an active–rest block. Athletes should have these 1–3 times a year.

They act like a mental deload. Constant pressure from competition and hard training can bring burnout, demotivation, lost confidence, mood swings and sleep disturbance. Active rest gives you the chance to heal — and to *want* to come back to training.

LIGHT SESSIONS

Light days are when we bring training volume right down — normally around 50% of the usual overload volume, often half the drills or rounds. If you or your athletes are becoming distracted, missing target reps, looking exhausted or unable to move explosively, switch to damage control and run a light session.

05

SECTION 05

THERAPEUTIC & SUPPLEMENTAL

- HEAT, COLD & COMPRESSION
- SOCIAL SUPPORT & TOUCH
- WHAT DOESN'T WORK

05 / THERAPEUTIC & SUPPLEMENTAL

HEAT, COLD & COMPRESSION

METHOD	EFFECTS & HOW TO APPLY
Cold application	Icing, cold water immersion, cryotherapy. Decreases perceived pain and fatigue, aids performance recovery. Apply to an area for 15–20 minutes, with a 5–20 minute break.
Heat application	Heat packs, warm water immersion, sauna. Reduces DOMS, enhances tissue recovery, relaxes you. Aim for ~20 minutes in the sauna — you can benefit daily.
Contrast	Combining heat and cold. Recommended: 15–20 minutes sauna into 5 minutes cold immersion. Cold enough you want out; hot enough you sweat — but never unsafe.
Compression	Garments — sleeves, tights, socks — apply pressure, increasing blood flow, nutrient uptake and waste removal. Wear 2–24 hours post-exercise.

05 / THERAPEUTIC & SUPPLEMENTAL

SUPPORT & WHAT DOESN'T WORK

SOCIAL SUPPORT & COMPASSIONATE TOUCH

External support from family, friends, coaches, a therapist or even your dog has a direct impact on your state of mind and stress — and indirectly on recovery. Supported people sleep well, adapt to obstacles and stick to their plans. Find a good coach, and good friends who are positive and genuine, not energy-sapping.

Compassionate touch — pleasant massage, or touch from loved ones — leads to relaxation, which leads to recovery. Aim for pleasant, enjoyable massage; extremely hard massage can inflict damage and decrease recovery.

DISHONOURABLE MENTIONS

Things with little meaningful recovery benefit: foam rolling, stretching, cupping, yoga, breathing techniques and sensory deprivation (any effect is really just relaxation). NSAIDs like ibuprofen blunt adaptation and can mask injury — reserve them for genuine discomfort. Sauna sessions over ~30 minutes just add heat stress. And recovery drinks without a real dose of carbs or protein, or amino acid supplements on top of adequate protein, add cost without benefit.

PUTTING IT TOGETHER

THE RECOVERY ROADMAP

METHOD	FREQUENCY	APPLICATION
Train within MRV	Always	Understand how much you can train and recover from.
Nightly sleep	Always	6–10 hours on a weekly average, based on fatigue.
Stress management	Always	Minimise emotional responses; low-stress behaviours.
Nutrition	Always	Sufficient calories, protein, carbs and water daily.
Relaxation	At least 45 min / day	Activities that reduce arousal and physical work.
Planned rest	1x per week	No structured training that day.
Light sessions	1–2x per week	~50% reduction in volume.
Deloading	Every 3–6 weeks	Placed after a very hard period.
Cold / contrast / compression	As needed, post-training	Timed bouts with breaks and repetitions.

THE RECOVERY TOOLBOX

RUTHLESS WITH BASICS

Train hard and push your limits from time to time. Rest hard and sleep every night. Keep your cool, stay positive, and follow your nutrition plan — no excuses. Plan light training across every week, month and year, and take breaks when you need them.

YOU DON'T NEED TO ADD MORE. JUST BECOME RUTHLESS WITH THE BASICS.

Good recovery requires discipline, honesty and humility — and it will change your life. Manage your training, nutrition, stress, time and ego, and you're already in the top 10%.

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