Kick Starter: Chapter 3 — Energy Balance

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Welcome

Hi there!

Welcome to the LEVELUP Online Coaching Kick Starter.

Whether you are picking up a barbell for the first time or you have been training for years and are finally ready to do it properly — this is where we build the foundation.

I have put together 7 chapters, each covering a key topic that will set you up to get the most from your coaching. Training, nutrition, mindset, progress tracking, sleep — everything you need to understand what you are doing and why.

Work through these chapters at your own pace. The more you understand the principles behind your programme, the better your results will be.

Let's get to work.

Andrew

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What is Energy Balance

Energy balance is the relationship between the calories you consume and the calories you burn.

It is the foundation of every body composition outcome — fat loss, muscle gain, or maintaining where you are.

No diet, no training programme, no supplement operates outside of this principle.

Understanding it properly removes a huge amount of the confusion that surrounds nutrition.

Calorie Surplus

Take in more energy than you use — body stores the excess, primarily as body fat.

Calorie Deficit

Take in less than you use — body draws on stored energy to make up the difference, and you lose fat.

Maintenance

Intake and expenditure roughly match — weight stays broadly stable.

This is energy balance. Everything else in nutrition sits on top of it.

It does not mean calories are the only thing that matters — food quality, protein intake, training, sleep, and stress all play important roles. But none of those things override energy balance.

A diet of only whole foods will still produce fat gain in a consistent calorie surplus.

A less-than-perfect diet will still produce fat loss in a consistent calorie deficit.

Understanding this is genuinely liberating because it removes the idea that any particular food is the problem or that any particular diet holds the secret.

Understanding Your Calorie Needs — BMR and TDEE

Before you can use energy balance deliberately, you need to understand how many calories your body actually uses. There are two key terms worth knowing.

Basal Metabolic Rate (BMR)

Your BMR is the number of calories your body burns at complete rest — just to keep you alive. Breathing, circulation, organ function, temperature regulation, cell repair — all of it costs energy, even when you are doing nothing. For most adults this sits somewhere between 1,400 and 2,000 calories per day, though it varies significantly based on body size, age, sex, and muscle mass. Muscle tissue is metabolically active — the more lean muscle you carry, the higher your BMR. This is one of the long-term benefits of strength training that goes beyond aesthetics.

Total Daily Energy Expenditure (TDEE)

Your TDEE is your BMR plus all the additional calories you burn through daily activity — training, walking, work, fidgeting, digestion. This is the number that actually matters for setting your calorie targets because it represents your total energy output across the day.

TDEE is calculated by applying an activity multiplier to your BMR. As a rough guide the ranges look like this:

Activity Level	Description	Multiplier
Sedentary	Desk job, minimal movement	~1.2
Lightly Active	Some exercise, generally active day	~1.375
Moderately Active	Regular training, active lifestyle	~1.55
Very Active	Hard training most days, physically demanding work	~1.725

As a practical example — if your BMR is 1,800 calories and you train three to four times per week with a moderately active lifestyle, your TDEE might sit around 2,600 to 2,800 calories per day. This is your maintenance figure — the amount you need to consume to hold your current weight.

Your programme includes a specific calorie target based on your TDEE and your goal. This is the number to work from. It is not a fixed figure forever — we adjust it based on how your body responds over time.

Calorie Deficit — Fat Loss

To lose fat you need to consume fewer calories than your body burns. This creates a calorie deficit and forces your body to draw on stored energy — primarily body fat — to make up the shortfall. The science is straightforward. The execution is where it requires thought.

How big should the deficit be?

One pound of body fat contains roughly 3,500 calories of stored energy. A daily deficit of 500 calories would therefore produce roughly one pound of fat loss per week in theory. In practice the relationship is not perfectly linear — water retention, muscle mass changes, and hormonal adaptation all influence the numbers — but it is a useful working framework.

A moderate deficit of 300 to 500 calories per day is the sustainable sweet spot for most people. It produces consistent fat loss of around 0.5 to 1 kilogram per week without being aggressive enough to cause the problems that come with extreme restriction.

Why aggressive restriction does not work

Going too low on calories — eating 800 or 1,000 calories per day, for example — might produce faster weight loss initially but it comes with significant costs. Muscle mass is lost alongside fat, making it harder to maintain results and reducing your metabolism over time. Energy levels crash, training quality drops, hunger becomes overwhelming, and the approach becomes impossible to sustain. The majority of people who lose weight through very aggressive restriction regain it and more within twelve months because the approach was never sustainable.

> The goal is not to lose weight as fast as possible. The goal is to lose fat while maintaining as much muscle as possible, at a pace you can sustain for long enough to actually reach your target.

Protein in a deficit

When you are in a calorie deficit, hitting your protein target becomes even more important. Adequate protein signals to the body that muscle tissue is not available as an energy source, helping to preserve it during fat loss. If you do one thing consistently in a deficit, make it protein.

What a deficit actually looks like in practice

If your TDEE is 2,600 calories, a moderate deficit might put your target at 2,100 to 2,300 calories per day. This is not a dramatic restriction. It means eating slightly less than your body would maintain weight on — not starving, not eliminating food groups, not avoiding social events. Just a consistent, manageable reduction that adds up over weeks and months.

Calorie Surplus — Building Muscle

To build muscle your body needs two things — a training stimulus that creates the demand for new muscle tissue, and enough raw materials and energy to actually build it. That second part requires a calorie surplus.

You can build some muscle at maintenance calories, particularly if you are relatively new to training. But for meaningful muscle growth over time, a modest surplus is more effective. It provides the extra energy needed for muscle protein synthesis — the process by which new muscle tissue is created — and supports better recovery and training performance.

How big should the surplus be?

The mistake most people make when trying to build muscle is eating far too much on the assumption that more food means more muscle. Muscle tissue can only be synthesised at a certain rate regardless of how many extra calories you consume. Excess calories beyond what the body can use for muscle building are simply stored as fat.

Lean Bulk

A modest surplus of 200 to 300 calories per day above TDEE — produces meaningful muscle growth while minimising unnecessary fat gain. Progress is slower than an aggressive bulk but the result is a much better body composition outcome. You will not need to then spend months cutting the fat you gained in an aggressive surplus.

Aggressive Bulk

Eating far too much on the assumption that more food means more muscle. Excess calories beyond what the body can use for muscle building are simply stored as fat. Requires a lengthy cutting phase afterwards.

For most people, a lean bulk looks like eating slightly more than maintenance, keeping protein high, training progressively, and being patient. Muscle is built over months and years, not weeks.

What a surplus looks like in practice

If your TDEE is 2,600 calories, a lean bulk might put your target at 2,800 to 2,900 calories per day. This is not dramatically more food — an extra meal, a larger portion, an additional protein source. The training programme does the heavy lifting. The surplus provides the conditions for it to work.

Body Recomposition — Doing Both

Body recomposition means losing fat and building muscle at the same time.

It is possible — particularly for people who are relatively new to structured training, returning to training after a break, or carrying a higher percentage of body fat.

The body in these circumstances has both the stored energy available to fuel muscle building and the training response to drive it.

Who it works best for

- Relatively new to structured training
- Returning to training after a break
- Carrying a higher percentage of body fat

How it works

Recomposition happens most effectively at maintenance calories or a very small deficit, combined with high protein intake and a progressive training programme.

What to expect

Progress is slower than focussing on one goal exclusively but for many people it is the most practical and motivating approach — the body is changing in both directions simultaneously.

For more experienced trainees, pure recomposition becomes harder to achieve and dedicating periods to either a fat loss phase or a muscle building phase tends to produce faster overall progress.

This is something we discuss and plan as your coaching develops.

Common Mistakes and How to Avoid Them

1

Underestimating how much you eat

Research consistently shows that people underestimate their calorie intake, often by 20 to 40 percent. This is not dishonesty — it is genuinely difficult to accurately estimate portion sizes and calorie content without tracking. If you feel like you are eating in a deficit but not losing fat, this is almost always the explanation. Track accurately for a few weeks and the picture becomes clear.

2

Overestimating how many calories you burn through exercise

Fitness trackers and gym machines overestimate calorie burn, sometimes significantly. An hour of moderate gym training might burn 300 to 500 calories — less than most people think. Using exercise as a licence to eat significantly more often cancels out the deficit entirely. Training is for performance, strength, and health. Nutrition drives fat loss.

3

Eating back all exercise calories

Related to the above. Tracking apps often encourage you to eat back calories burned through exercise. Unless you are an endurance athlete with very high training volumes, this tends to be counterproductive for fat loss. Your TDEE calculation already accounts for your activity level.

4

Starting too aggressively

A 1,000 calorie deficit feels like fast progress until it becomes unsustainable after two weeks. A 300 to 500 calorie deficit feels slower but it is the one you can maintain for six months. Six months of moderate consistency beats two weeks of extreme restriction every time.

5

Letting weekends undo the week

This is one of the most common patterns. Monday to Friday in a deficit, weekend eating that pushes well above maintenance, net result — close to maintenance across the week with no meaningful progress. You do not need to avoid weekends. You need to be aware of what actually happens calorie-wise and make informed choices. A meal out or a few drinks does not ruin progress. An untracked weekend of significantly elevated intake repeated every week does.

6

Changing too many things at once

If you change your calories, your training, your sleep, and your supplement routine at the same time and results do not come, you have no idea which variable is the problem. We build things systematically for exactly this reason.

7

Not being consistent long enough

Body composition changes happen over months, not weeks. The first two to four weeks of a new approach are dominated by water weight fluctuations and glycogen changes — actual fat loss and muscle building is happening beneath the surface but the scale will not always show it clearly. Commit to the process for at least eight to twelve weeks before drawing conclusions about whether it is working.

Conclusion

> Energy balance is not a diet. It is not a restriction. It is an understanding of how your body responds to the food you give it.

Once you genuinely understand this principle, the confusion that most people carry around nutrition largely disappears. There is no need to fear carbohydrates, avoid meals out, or follow rigid meal plans. There is just an awareness of what you are consuming relative to what you are burning — and the ability to adjust it deliberately based on your goal.

Your programme includes your specific calorie and protein targets. They are calculated, not guessed. Follow them, track honestly, and communicate with me when things need adjusting.

That is the whole game.

Tools and Resources

Andrew Caine PT Academy

You get exclusive access to the Academy to view training guides, nutritional resources, and educational content.
www.andrewcainept.com

Andrew Huberman Podcast

Evidence-based content covering health, fitness, performance, and neuroscience.

Examine

Research-backed resource covering nutrition and supplements. Cuts through the noise with scientific evidence.

YouTube

Useful for exercise tutorials, form guidance, and further education on training and nutrition.

Andrew Caine PT on Instagram

Follow for regular evidence-based content on training, nutrition, and the balanced lifestyle you are working towards.
@andrewcainept

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> **THANK YOU**