

- Does history record any case in which the majority was right? —Robert Heinlein
- I love fools' experiments. I'm always making them. —Charles Darwin
- Want to extend the fat-burning half-life of caffeine? Naringenin, a useful little molecule in grapefruit juice, does just the trick.
- Need to increase insulin sensitivity before bingeing once per week? Just add some cinnamon to your pastries on Saturday morning, and you can get the job done.
- Over-fat? Try timed protein and pre-meal lemon juice. Under-muscled? Try ginger and sauerkraut. Can't sleep? Try upping your saturated fat or using cold exposure.
- Type 2 diabetics going off medication 48 hours after starting a dietary intervention? Wheelchair-bound seniors walking again after 14 weeks of training? This is not science fiction. It's being done today. As William Gibson, who coined the term "cyberspace", has said: "The future is already here—it is just unevenly distributed."
- As William Gibson, who coined the term "cyberspace", has said: "The future is already here—it is just unevenly distributed."
- In practice, the 80/20 principle is often much more disproportionate. To be perceived as fluent in conversational Spanish, for example, you need an active vocabulary of approximately 2,500 high-frequency words. This will allow you to comprehend more than 95% of all conversation. To get to 98% comprehension would require at least five years of practice instead of five months. Doing the maths, 2,500 words is a mere 2.5% of the estimated 100,000 words in the Spanish language. This means: 2.5% of the total subject matter provides 95% of the desired results. This same 2.5% provides just 3% less benefit than putting in 12 times as much effort. This incredibly valuable 2.5% is the key,
- Timothy Noakes PhD, author or co-author of more than 400 published research papers, is fond of saying: "Fifty per cent of what we know is wrong. The problem is that we do not know which 50% it is."
- Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away. —Antoine de Saint-Exupéry
- The minimum effective dose (MED) is defined simply: the smallest dose that will produce a desired outcome.
- In the context of body redesign, there are two fundamental MEDs to keep in mind: To remove stored fat → do the least necessary to trigger a fat loss cascade of specific hormones. To add muscle in small or large quantities → do the least necessary to trigger local (specific muscles) and systemic (hormonal²) growth mechanisms.

- Everything popular is wrong. —Oscar Wilde, The Importance of Being Earnest
- Know the rules well, so you can break them effectively. —Dalai Lama XIV
- Eighty to 90 models have helped Charles Munger develop, in Warren Buffett's words, "the best 30-second mind in the world. He goes from A to Z in one move. He sees the essence of everything before you even finish the sentence."
- Charles Munger likes to quote Charles Darwin: Even people who aren't geniuses can outthink the rest of mankind if they develop certain thinking habits.
- This, dear friends, is referred to as "car park" science, so-called after a joke about a poor drunk man who loses his keys during a night on the town. His friends find him on his hands and knees looking for his keys under a streetlight, even though he knows he lost them somewhere else. "Why are you looking for your keys under the streetlight?" they ask. He responds confidently, "Because there's more light over here. I can see better."
- For the vast majority of you reading this book who weigh more than 8.5st (54kg), 1.4st (9kg) of recomposition (which I'll define below) will make you look and feel like a new person, so I suggest this as a goal.
- It most often involves losing 15lb (6.8kg) of fat and gaining 5lb (2.3kg) of muscle, or some blend in between.
- Here is the ratio of most of the fat-loss case studies in this book: ____/____/____ (60% diet, 10% drugs, 30% exercise)
- The decent method you follow is better than the perfect method you quit.
- Correlation doesn't prove causation. Be sceptical when people tell you that A causes B. They're wrong much more than 50% of the time.
- His trainer at the time, Marty Gallagher, has stated matter-of-factly that "maintaining peak condition year-round is a ticket to the mental ward".
- Fat people tend to have fat pets.
- Even if you are predisposed to being overweight, you're not predestined to be fat.
- Rule #1: It's not what you put in your mouth that matters, it's what makes it to your bloodstream. If it passes through, it doesn't count.
- Rule #2: The hormonal responses to carbohydrates (CHO), protein and fat are different.
- People suck at following advice. Even the most effective people in the world are terrible at it. There are two reasons: Most people have an insufficient reason

for action. The pain isn't painful enough. It's a nice-to-have, not a must-have. There has been no "Harajuku Moment". There are no reminders. No consistent tracking = no awareness = no behavioural change. Consistent tracking, even if you have no knowledge of fat loss or exercise, will often beat advice from world-class trainers. But what is this all-important "Harajuku Moment"? It's an epiphany that turns a nice-to-have into a must-have. There is no point in getting started until it happens. It applies to fat loss as much as strength gain, to endurance as much as sex. No matter how many bullet points and recipes I provide, you will need a Harajuku Moment to fuel the change itself.

- The Harajuku Moment "Why had I gone 10 years getting more and more out of shape (starting off pretty unhealthy in the first place) only to finally fix it now? "I actually remember the exact moment I decided to do something.

- "For a long time, I've known that the key to getting started down the path of being remarkable in anything is to simply act with the intention of being remarkable. "If I want a better-than-average career, I can't simply 'go with the flow' and get it. Most people do just that: they wish for an outcome but make no intention-driven actions towards that outcome. If they would just do something most people would find that they get some version of the outcome they're looking for. That's been my secret. Stop wishing and start doing.

- (4.5kg) of weight loss is roughly a clothing size [XL → L → M]. That was a HUGE motivator.

- "Practical Pessimism: Stoicism as Productivity System", Google Ignite (www.fourhourbody.com/stoicism) This is a five-minute presentation I gave in 2009 on my personal Harajuku Moment. This video will show you how to inoculate your fears while leveraging them to accomplish what you want.

- The first principle is that you must not fool yourself, and you are the easiest person to fool. —Richard P. Feynman, Nobel Prize-winning physicist

- Spend a pound or two and get your data. If need be, skip a few lattes and a dinner out. Next steps: Take your "before" circumference measurements. Get a simple tape measure and measure four locations: both upper arms (mid-bicep), waist (horizontal at navel), hips (at widest point below waist) and both legs (mid-thigh). Total these numbers to arrive at your Total Inches (TI). Changes in this total will be meaningful enough to track. Estimate your body fat (BF%) based on the "Eyeballing It" sidebar here. Choose the best tool and schedule a session. If you're over 30% body fat, avoid calipers and use DEXA, BodPod or ultrasound, in that order. If you cannot find these, opt for bio-impedance and follow the hydration rules mentioned earlier. If you are under 25%, still aim for DEXA, BodPod or ultrasound.

- Simple: logic fails. If you were to summarize the last 100 years of behavioural psychology in two words, that would be the takeaway.

- Think of them as insurance against the weaknesses of human nature—your weaknesses, my weaknesses, our weaknesses: 1. Make it conscious. 2. Make

it a game. 3. Make it competitive. 4. Make it small and temporary.

- The researchers concluded that photographs are more effective than written food diaries. This is saying something, as prior studies had confirmed that subjects who use food diaries lose three times as much weight as those who don't. The upshot: use your camera phone to take a snapshot before opening your mouth. Even without a prescribed diet, this awareness alone will result in fat loss.

- Get an accurate picture of your baseline. It will look worse than you expect. This need not be bad news. Ignoring it won't fix it, so capture it and use it.

- Jack Stack taught all of his employees how to read the financial statements, opened the books, and put numerical goals alongside individual performance numbers on grease boards around the plant. Daily goals and public accountability were combined with daily rewards and public recognition.

- Measurement = motivation. Seeing progress in changing numbers makes the repetitive fascinating and creates a positive feedback loop. Once again, the act of measuring is often more important than what you measure. To quote the industrial statistician George Box: "Every model is wrong, but some are useful."

- Aristotle had it right, but he was missing a number: "We are what we do repeatedly". A mere five times (five workouts, five meals, five of whatever we want) will be our goal. When in doubt, "take five" is the rule.

- Questions and Actions Before you move on to another chapter, take (or in the case of #2, start) at least two of the following four actions. Your choice:

- Do I really look like that in underwear?

- 2. Do I really eat that? Use a digital camera or camera phone to take photographs of everything you eat for 3–5 days, preferably including at least one weekend day.

- Who can I get to do this with me? Find at least one person to engage in a friendly competition using either total inches (TI) or body fat percentage.

- How do I measure up? Get a simple tape measure and measure five locations: both upper arms (mid-bicep), waist (horizontal at navel), hips (widest point between navel and legs) and both legs (mid-thigh). Total these numbers to arrive at your total inches (TI). I'm telling you again because I know you didn't do it after the last chapter.

- What is the smallest meaningful change I can make?

- Michael Levin has made a career of taking the pressure off, and it has worked. Sixty literary works later, from national non-fiction bestsellers to screenplays, he was suggesting that I (Tim) do the same: set a meagre goal of two pages of writing per day. I had made a mental monster of the book in your hands, and

setting the bar low allowed me to do what mattered most: get started each morning.

- Understanding this principle, IBM led the computing world in sales for decades. The quotas for its salespeople were the lowest in the industry because management wanted the reps to be unintimidated to do one thing: pick up the phone. Momentum took care of the rest, and quotas were exceeded quarter after quarter.

- If you want to walk an hour a day, don't start with one hour. Choosing one hour is automatically building in the excuse of not having enough time. Commit to a fail-proof five minutes instead. This is exactly what Dr. Fogg suggested to his sister, and that one change (the smallest meaningful change that created momentum) led her to buy running shoes and stop eating dessert, neither of which he suggested. These subsequent decisions are referred to in the literature as "consonant decisions", decisions we make to be aligned with a prior decision.

- It's the five sessions that are important, not the duration of those sessions. Rig the game so you can win.

- He then added in two important lines below and above his "target" blue line: his minimum-allowable weight (green line) and his maximum-allowable weight (red line) for each day. He had no plan to hit his exact target weight each day, as that would be too stressful. He just had to keep between the lines.

- Interested in Phil's Excel spreadsheet? Download a blank version at www.fourhourbody.com/phil. Just input your starting weight and desired ending weight, and you can duplicate his experiment.

- Here are some of my meals that recur again and again: Breakfast (home): Scrambled eggs (pourable egg whites with one whole egg), black beans, and mixed vegetables warmed up or cooked in a microwave using Pyrex® containers. Lunch (Mexican restaurant): Grass-fed organic beef, borlotti beans, mixed vegetables and extra guacamole. Dinner (home): Grass-fed organic beef, lentils, and mixed vegetables. Just remember: this diet is, first and foremost, intended to be effective, not fun. It can be fun with a few tweaks (the next chapter covers this), but that's not the goal.

- Rule #1: Avoid "white" carbohydrates (or anything that can be white). Rule #2: Eat the same few meals over and over again. Rule #3: Don't drink calories. Rule #4: Don't eat fruit. Rule #5: Take one day off per week and go nuts.

- He repeated four meals: BREAKFAST: Egg whites, one whole egg, mixed vegetables, chicken breast LUNCH: Mixed vegetables, peas, spinach (salad) SECOND LUNCH: Chicken thigh, black beans, mixed vegetables DINNER: Beef (or pork), asparagus, borlotti beans

- The Three-Minute Slow-Carb Breakfast (www.fourhourbody.com/breakfast) Breakfast is a hassle. In this video, I'll show you how to make a high-protein

slow-carb breakfast in three minutes that is perfect for fat loss and starting the day at a sprint.

- Still Tasty (www.stilltasty.com) Not sure if it's safe to eat those eggs or those Thai leftovers? Tired of calling your mum to ask? This site allows you to search the shelf life of thousands of cooked and uncooked foods.

- Gout: The Missing Chapter (<http://www.fourhourbody.com/gout>) Concerned about protein intake and gout? Read this missing chapter from Good Calories, Bad Calories, graciously provided by stunning science writer Gary Taubes. It might change your mind.

- As to methods, there may be a million and then some, but principles are few. The man who grasps principles can successfully select his own methods. — Ralph Waldo Emerson

- One thing that worked well for me was keeping a little notepad with me. Everytime I got a craving for something (sweet stuff or just regular food) I added it to the list of things I was going to feast on during my cheat day. This was my way of acknowledging my craving and reminding myself that I could have it, but just not right now. It's like deferred eating.

- SHOULD I TAKE ANY SUPPLEMENTS? I suggest potassium, magnesium and calcium. This diet will cause you to lose excess water, and electrolytes can go along with it.

- Potassium (4,700 mg per day recommended for an average, healthy 25-year-old male)

- Calcium (1,000 mg per day recommended for an average, healthy 25-year-old male)

- Magnesium (400 mg per day recommended for an average, healthy 25-year-old male)

- If you have trouble sleeping due to hunger, you're not eating enough. In these cases, consume a bit of protein prior to bed, which can be as simple as 1–2 tablespoons of almond butter (ideal) or peanut butter with no additives (the only ingredients should be peanuts and perhaps salt).

- Not only will the increased protein intake decrease water retention, resting metabolism increases about 20% if your breakfast calories are at least 30% protein.

- The first three mistakes discussed in the next few pages (eating too late, not eating enough protein, drinking too little water) are the three most common causes.

- MISTAKE #4: BELIEVING THAT YOU'LL COOK, ESPECIALLY IF YOU'RE A BACHELOR In a sentence: if you don't normally cook, get canned and frozen

food for the first few weeks.

- PRINCIPLE #1: MINIMIZE THE RELEASE OF INSULIN, A STORAGE HORMONE. Insulin release is minimized by blunting sharp jumps in blood sugar:

- PRINCIPLE #2: INCREASE THE SPEED OF GASTRIC EMPTYING, OR HOW QUICKLY FOOD EXITS THE STOMACH.

- PRINCIPLE #3: ENGAGE IN BRIEF MUSCULAR CONTRACTION THROUGHOUT THE BINGE.

- Short answer: because it brings glucose transporter type 4 (GLUT-4) to the surface of muscle cells, opening more gates for the calories to flow into. The more muscular gates we have open before insulin triggers the same GLUT-4 on the surface of fat cells, the more we can put in muscle instead of fat. Longer answer:

- In conclusion, the present investigation demonstrated that 8 days of HIT lasting only 280 seconds elevated both GLUT-4 content and maximal glucose transport activity in rat skeletal muscle to a level similar to that attained after LIT ["Low-Intensity Training" of six hours a session], which has been considered a tool to increase GLUT-4 content maximally.

- The insulin-independent effect of exercise begins to reverse minutes after exercise cessation with most or all of the increase lost within 1–4 hours. A much more persistent effect is improved insulin sensitivity that is often found approximately 2–4 hours and as long as 1–2 days after acute exercise.

- I started with 60–120 seconds total of air squats and wall tricep extensions immediately prior to eating main courses. For additional effect, I later tested doing another 60–90 seconds approximately one and a half hours after finishing the main courses, when I expected blood glucose to be highest based on experiments with glucometres.

- In all cases, if you do 60–90 seconds of contraction after each meal (and a bit before, ideally), you might live to see your abs.

X-FACTOR: CISSUS QUADRANGULARIS

- Unsweetened plain yogurt and fermented kombucha tea are two additional choices.

- I consume five forkfuls of sauerkraut each morning before breakfast and also add kimchi to almost all home-cooked meals. 3. Consider probiotics and prebiotics. Probiotics are bacteria. I've used Sedona Labs iFlora probiotics both during training (to help accommodate overfeeding) and after antibiotics.

- After: PAGG The end result was PAGG. Policosanol: 20–25 mg Alpha-lipoic acid: 100–300 mg (I take 300 mg with each meal, but some people experience

acid reflux symptoms with even 100 mg) Green tea flavanols (decaffeinated with at least 325 mg EGCG): 325 mg Garlic extract: at least 200 mg (I routinely use 650+ mg) Daily PAGG intake is timed before meals and bed, which produces a schedule like this: Prior to breakfast: AGG Prior to lunch: AGG Prior to dinner: AGG Prior to bed: PAG (omit the green tea extract) AGG is simply PAGG minus policosanol. This dosing schedule is followed six days a week. Take one day off each week and one week off every two months. This week off is critical.

- TOOLS AND TRICKS I used the following products for my testing, but I'll update the links based on availability and reader feedback. I have no financial interest in any of them: Allicin 6000 Garlic—650 mg, 100 caplets (www.fourhourbody.com/garlic) Mega Green Tea Extract—325+ mg EGCG, 100 capsules (www.fourhourbody.com/greentea) Vitamin Shoppe—Alpha-Lipoic Acid, 100 mg, 60 capsules (www.fourhourbody.com/ala) Nature's Life—Policosanol, 60 tablets (www.fourhourbody.com/policosanol)

- Don't tell me it's impossible, tell me you can't do it. Tell me it's never been done ... the only things we really know are Maxwell's equations, the three laws of Newton, the two postulates of relativity, and the periodic table. That's all we know that's true. All the rest are man's laws. —Dean Kamen, inventor of the Segway and recipient of the National Medal of Technology and Lemelson-MIT Prize

- "It was the thermal load of the water. Water is 24 times more thermally conductive than air. Phelps spends three or four hours a day in the water."

- Running a marathon might burn 2,600 calories, but working out in an 27.7°C (82°F) pool for four hours could burn up to an extra 4,000 calories, if one considered thermal load.

- So Ray began to treat himself like a human space heater. He tried everything: he drank a gallon of ice water between waking and 11 A.M.; he slept with no covers; he took midwinter "shiver walks" of 20–30 minutes with nothing but a T-shirt, earmuffs and gloves on his upper body. He later found less painful options, but the results were undeniable. He lost almost 2.7kg (9lb) in the first week.

- It's been shown that you can burn almost four times more fat than usual with two hours of cold exposure

- In a nutshell: cold stimulates BAT to burn fat and glucose as heat. Cold, as well as drugs called beta-adrenergic agonists,⁵ can also make BAT appear within WAT in mice and rats. In other words, cold might help you increase the amount of your "fat-burning" fat. This has tremendous implications.

- The second protocol, performed without ECA and tested separately, activated BAT and was far easier. PROTOCOL B 1. I placed an ice pack on the back of my neck and upper trapezius area for 30 minutes, generally in the evening, when my insulin sensitivity is lower than in the morning.

- I place a towel on the sofa while writing or watching a film and simply lean back against the ice pack.

- Consume, as Ray did, at least 500ml (18 fl oz) of ice water on an empty stomach immediately upon waking. In at least two studies, this water consumption has been shown to increase resting metabolic rate 24–30%, peaking at 40–60 minutes post-consumption, though one study demonstrated a lower effect of 4.5%. Eat breakfast 20–30 minutes later à la the Slow-carb Diet detailed in earlier chapters.

- Take 5–10-minute cold showers before breakfast and/or before bed. Use hot water for 1–2 minutes over the entire body, then step out of water range and apply shampoo and soap to your hair and face. Turn the water to pure cold and rinse your head and face alone. Then turn around and back into the water, focusing the water on your lower neck and upper back. Maintain this position for 1–3 minutes as you acclimatize and apply soap to all the necessary regions. Then turn around and rinse normally. Expect this to wake you up like a foghorn.

SIX REASONS TO TAKE A COLD SHOWER

Cold water improves immunity. Acute cold exposure has immuno-stimulating effects, and preheating with physical exercise or a warm shower can enhance this response. Increases in levels of circulating norepinephrine may account for this.

VINEGAR, COUNTER TO EXPECTATIONS, DIDN'T LOWER GLYCAEMIC RESPONSE. LEMON JUICE, ALSO COUNTER TO EXPECTATIONS, DID.

CINNAMON, EVEN IN SMALL DOSES, HAS A SUBSTANTIAL EFFECT ON GLUCOSE LEVELS.

Don't use too much. It's easy to get overambitious with cinnamon, but there are active substances that can hurt you if consumed in excess. Coumarin, as just one example, is a potent blood-thinner and some cinnamon in Europe has a warning label for this reason. Use no more than four grams per day. I use a few dashes in coffee and limit myself to two to three cups of coffee throughout the day. To reiterate, based on material bulk density reference charts, cinnamon weighs in at 0.56 grams per cubic centimetre, one cubic centimetre = 0.2 teaspoon, and so there are 2.8 grams of cinnamon per teaspoon. So four grams of cinnamon = 4 divided by 2.8, or just about one and a half teaspoons. Don't consume more per day.

The easiest thing you can do to decrease glucose spikes is slow down. I had to methodically finish my plate in thirds and train myself to wait five minutes between thirds, usually with the help of iced tea and slices of lemon. It also helps to drink more water to dilute digestion (I'm fantastic at this), eat smaller portions (not so good at this), and chew more (Orca is terrible at this).

Matt Mullenweg, lead developer of the WordPress blogging platform, lost 1.3st

(8.2kg) with one change: chewing each mouthful of food 20 times. The exact number wasn't important. It was having a precise number that helped. Counting slowed him down and made him aware of portion size, which made him less likely to overeat.

Slow down and smell the roses. Make 30 minutes the minimum for a meal.

Juliet Mae Fine Spices & Herbs (www.julietmae.foodzie.com) This is where you can buy Juliet Mae's delicious cinnamon. I used her sampler for all testing, which includes Cassia, Ceylon, and Saigon cinnamon.

I am my own experiment. I am my own work of art. —Madonna

The secret wasn't marathon aerobics sessions, nor was it severe caloric restriction. It was the Russian kettlebell swing, twice a week for an average of 15–20 minutes. Her peak session length was 35 minutes.

Though I added in a few extras for other reasons, the king of exercises—the two-arm kettlebell swing—is all you need for dramatic changes. Here are a few guidelines (more later): Stand with your feet 15–30cm (6–12in) outside of shoulder width on either side, each foot pointed outwards about 30 degrees. If toes pointed straight ahead were 12:00 on a clock face, your left foot would point at 10:00 or 11:00, and your right would point at 1:00 or 2:00. Keep your shoulders pulled back (retracted) and down to avoid rounding your back. The lowering movement (backswing) is a sitting-back-on-a-chair movement, not a squatting-down movement. Do not let your shoulders go in front of your knees at any point. Imagine pinching a penny between your buttocks when you pop your hips forward. This should be a forceful pop, and it should be impossible to contract your bottom more. If your dog's head gets in the way, it should be lights out for Fido.

I proposed a four-week test focusing on the swing and minuscule dietary changes, which Fleur agreed to: She switched her breakfast to a high-protein meal (at least 30% protein) à la the Slow-carb Diet. Her favourite: spinach, black beans and egg whites (one-third of a carton of scrambled liquid egg whites) with cayenne pepper flakes. Three times a week (Monday, Wednesday, Friday), she performed a simple sequence of three exercises prior to breakfast, all of which are illustrated in the next few pages: One set: 20 two-legged glute activation raises from the floor One set: 15 flying dogs, one set each side One set: 50 kettlebell swings (For you: start with a weight that allows you to do 20 perfect repetitions but no more than 30. In other words, start with a weight, no less than 9kg (20lb), that you can “grow into”.)

Kettlebells (www.fourhourbody.com/kettlebells)

From a training standpoint, there were four basic principles that made it happen, all of which will be expanded upon in the next chapter:

1. PERFORM ONE-SET-TO-FAILURE FOR EACH EXERCISE.

2. USE A 5/5 REP CADENCE.

3. FOCUS ON 2–10 EXERCISES PER WORKOUT, NO MORE.

All of these exercises can be found at www.fourhourbody.com/geek-to-freak

4. INCREASE RECOVERY TIME ALONG WITH SIZE.

It is vain to do with more what can be done with less. —William of Occam (c. 1288–1348), “Occam’s Razor”

I suggest adopting one rule of Dr. Ken Leistner, an NFL strength consultant I had the painful pleasure of training with in 1996: the goal of strength training is to reduce injury potential first, and to increase performance second.

I used hyper-abbreviated training to compensate for mediocre recuperative abilities. It was the self-control to do less. “Occam’s Protocol” is a variation of the consolidation routine used by the late Mike Mentzer, who won the heavyweight class of the Mr. Olympia competition in 1979. It is possible to get huge with less than 30 minutes of gym time per week. The following A and B workouts are alternated, whether you choose the machine or free weight option. The exercises should be performed for one set each and no more. The objective is to fail, to reach the point where you can no longer move the weight, at seven or more repetitions at a 5/5 cadence (five seconds up and five seconds down). The leg press is to be performed for 10 or more repetitions at the same cadence. The only exceptions to the cadence rule are the abdominal exercises and kettlebell swing, which are described in earlier chapters. The mechanisms of growth we want to stimulate are both local (muscular, neural) and systemic (hormonal). The longer time under tension (TUT) for the lower body will elicit a greater full-body growth hormone response while also stimulating the formation of new capillaries, which will improve nutrient delivery. Each workout consists of just two primary lifts. **WORKOUT A: THE MACHINE OPTION** Close-grip supinated² (palms facing you) pull-down × 7 reps (5/5 count) Machine shoulder press × 7 reps (5/5 count) (Optional: Abdominal exercises from “Six-Minute Abs”)

WORKOUT B: THE MACHINE OPTION Slight incline/decline bench press × 7 (5/5 count) Leg press × 10 (5/5 count) (Optional: Kettlebell or T-bar swings from “Building the Perfect Posterior” × 50) Stationary bike × 3 minutes at 85+ rpm (to minimize subsequent leg soreness)

WORKOUT A: FREE WEIGHT OPTION Free weights can be used if you prefer them, or if you travel often and need standardized equipment that is the same around the world: Yates row with EZ bar (ideal) or barbell × 7 (5/5 count) (see pictures in the sidebar later this chapter) Shoulder-width barbell overhead press × 7 repetitions (5/5 cadence) (Optional: Abdominal exercises from “Six-Minute Abs”)

WORKOUT B: FREE WEIGHT OPTION Slight incline bench press with shoulder-width grip × 7 (5/5 count) (If no Power Rack³ is available, use

dumbbells, but you'll often run into problems with adding weight in small increments.) Squat × 10 (5/5 count) (Optional: Kettlebell or T-bar swings from "Building the Perfect Posterior" × 50) Stationary bike × 3 minutes (to minimize subsequent leg soreness)

GETTING STARTED Step 1: Take at least seven days off of all training that causes significant muscular damage. No bodyweight resistance training or weight training allowed. Step 2: Begin Occam's Protocol with two days between A and B workouts. After two of both the A and B workouts, increase the rest days between workouts to three days. As soon as you have a workout where more than one exercise has stalled (indicated in our hypothetical calendars with the B*), but not before, increase to four days between workouts. Two sample months Continue adding rest as needed to resolve plateaus until you hit your target weight or end your bulking cycle.

"The workouts are the least challenging part of it. Going to the gym so rarely and for so short a time left me wanting more.

"I think my biggest worry was that all the food would just create a tyre around my abdomen, but like you said, it all went to the right places and people noticed ... there was no downside and no reason not to do this."

All you need are two compound exercises (one high-rep and high-speed, and the other low-rep and low-speed) and, if you absolutely must do curls, include one lesser-known version called the "reverse drag curl". The First Compound Exercise: The Two-Handed Kettlebell Swing We covered this exercise in detail in "Building the Perfect Posterior". Reps are 50+. The Second Compound Exercise: The "Yates" Bent Row Named after six-time Mr. Olympia Dorian Yates, who used it as a staple of his back routine, this exercise is a palms-up bent row performed with a slight 20–30-degree bend at the waist from standing. The bar will generally be at the top of the kneecaps in the bottom hang position. To minimize wrist pain, perform with an EZ bar if possible (here demonstrated with a standard Olympic barbell) and pause for a second at your hip crease, where the bar should make contact.

It's the little details that are vital. Little things make big things happen. —John Wooden, Hall of Fame NCAA basketball coach (10 NCAA titles in 12 years)

solid biological data indicate that the optimal training frequency for the vast majority of the population is no more than once a week.

HOW DO I DETERMINE STARTING WEIGHTS?

Do this by performing sets of five repetitions in each exercise with one minute of rest in between. Cadence should be fast but controlled on the raising and two to three seconds on the lowering. Do not perform more than five reps per set. If you can lift more, wait a minute, increase the weight 4.5kg (10lb) or 10% (whichever is less), and attempt again. Repeat this until you complete fewer than five reps. After you fail to complete five reps, calculate 70% of your last full five-rep set. Take a three-minute rest and perform a 5/5 cadence set-to-failure

using this weight. Congratulations, you just performed your first proper set-to-failure for this exercise, and this weight will be your starting point for Occam's Protocol. For the shoulder press, use 60% of the last successful five-rep set instead of 70%.

Then we do the maths: $120 \times 0.7 = 84$, and we round up or down to the nearest weight we can actually use on a machine or bar, which leads us to 39kg (85lb). (3-min rest) 39kg (85lb) $\times 8.4$ to failure (5/5) The 8.4 just means your failure was reached at $8 + 4/10$ of a repetition. Take a five-minute rest, then repeat this process with the shoulder press. Once finished with this first workout A, record the target weights you will use for your next A. Since this A was done on a Monday, your next few workouts will look like this: (Just finished: Monday—Workout A) Thursday—Workout B Sunday—Workout A Wednesday—Workout B Sunday—Workout A (notice the planned increase to 3 rest days preceding this workout)

To maintain this rate of progress for even two months, you will need to eat like it's your job. Add shakes or milk if whole food is too difficult.

If you miss your target by more than one repetition on the first exercise of a given workout, go home, take the next day off, then repeat the workout.

Cutting a workout short takes tremendous self-control and runs counter to gym culture. Be smart and opt for a 48-hour reboot instead of a two-week or three-week reboot. Last but not least, if you abandon a workout because you miss a set, add another recovery day between all workouts moving forward.

Let's say you are 11.4st (73kg) lean bodyweight (determined by body composition testing) and want to have 81.6kg (180lb) of lean mass. You would check your diet to ensure that you are consuming $170 \times 20 = 3,400$ calories. This is the absolute rock-bottom minimum and also applies to non-workout days.

WHAT ABOUT WARM-UPS? Take 60% of your work weight for each exercise in a given workout and perform three reps at a 1/2 cadence (1 second up, 2 seconds down). This is done to spot joint problems that could cause injuries at higher weights, not to "warm up" per se. Prep sets for all exercises should be performed prior to your first real set at 5/5. In practical terms, the first few repetitions of each work set act as the warm-up. I have never had a trainee injured using this protocol.

WHAT TO DO IF YOUR GAINS SLOW WITH ONE SESSION PER WEEK? Rather than doing one full-body workout every 10–14 days, for example, test a split routine to facilitate strength gains while increasing your GLUT-4 windows to at least two per week. This is how you get very big, very fast without getting very fat. I've successfully used the following three-workout split, most notably in 1997: Session 1: Pushing exercises Session 2: Pulling exercises Session 3: Leg exercises

Experiment with different depths of penetration. Using a rhythm of nine shorter

half-length penetrations with one long is particularly effective.

The woman should test (a) pulling her knees towards her chest to tilt her hips towards her, and (b) placing her feet flat on the bed to elevate her hips. One will usually feel awesome, while the other will feel awkward.

Professor Nina offers the following advice for all intercourse: “When in doubt, you supply the pressure and she provides the movement.”

PROTOCOL #1: LONG-TERM AND SUSTAINED Fermented cod liver oil + vitamin-rich butter fat—2 capsules upon waking and before bed Vitamin D3—3,000–5,000 IU upon waking and before bed (6,000– 10,000 IU per day), until you reach blood levels of 55 ng/mL Short ice baths and/or cold showers—10 minutes each, upon waking and right before bed Brazil nuts—3 nuts upon waking, 3 nuts before bed (see important footnote).⁵

PROTOCOL #2: SHORT-TERM AND FUN “NITRO BOOST” 20–24 Hours Prior to Sex Eat at least 800 milligrams of cholesterol (example: four or more large whole eggs or egg yolks) within three hours of bedtime, the night before you want to have incredible sex. The Wolverine intro to this chapter was partially thanks to two 350g (12oz) rib-eye steaks the night before, but it’s easier to stomach hard-boiled eggs. Why before bed? Testosterone is derived from cholesterol, which is primarily produced at night during sleep (between midnight and 4:00–6:00 A.M.). Four Hours Prior to Sex 4 Brazil nuts 20 raw almonds 2 capsules of the above-mentioned fermented cod/butter combination

Blue Ice™ Butter Oil/Fermented Cod Liver Oil Blend
(www.fourhourbody.com/butterblend) This is the cod/butter combination I used. Blue Ice™ is from a small manufacturer and production is limited.

It also helped me achieve the 45+kg (100+lb) strength gains as detailed in “Effortless Superhuman”: 350ml (12 fl oz) whole raw milk 4 tbsp raw almond butter 2 raw egg yolks 3 tbsp chia seeds 1 tsp vanilla extract ½ tsp cinnamon This is more appropriately called a “fat shake” instead of a protein shake, but I still dropped body fat while consuming it. How?

More than two glasses of wine within four hours of sleep decreases deep-wave sleep 20–50%. Even four glasses six hours beforehand did not appear to have this effect, so the timing is crucial. Conversely, taking 15+ drops of California poppy extract appeared to increase deep-wave sleep up to 20%.

Eating two tablespoons of organic almond butter on celery sticks before bed eliminated at least 50% of the “feel like shit” (1–3) mornings. Ever wonder how you can sleep 8–10 hours and feel tired? The likely culprit: low blood sugar. Make a pre-bed snack part of your nutritional programme. One to two tablespoons of flaxseed oil (120–240 calories) can be used in combination with the celery-and-almond-butter to further increase cell repair during sleep and thus decrease fatigue. Flaxseed oil tastes like a mixture of raccoon urine and asparagus, so—if you opt to include it—I recommend pinching your nose while consuming it, per Dr. Seth Roberts, whom we’ll meet later.

EAT A LARGE FAT- AND PROTEIN-DOMINATED MEAL WITHIN THREE HOURS OF BEDTIME. I discovered this unintentionally while tracking testosterone changes. Consumed within three hours of getting under the sheets, meals of at least 800 milligrams of cholesterol (four or more large whole eggs) and 40 grams of protein produced dramatically faster time-to-sleep scores than meals of lower volume or lower protein and fat. Eating two rib-eye steaks, each about 350g (12oz), had the strongest tranquilizer-like effect.

Gray's fundamental tool for identifying imbalances is his brainchild: the Functional Movement Screen (FMS). The FMS is a series of seven movement tests administered by a certified professional. Each test is scored on a three-point scale. For self-assessment, his professional FMS can be abbreviated to five movements with simple pass-fail evaluation: Deep squat Hurdle step In-line lunge Active straight leg raise Seated rotation

Assuming people do the screen, what are the 2–4 corrective exercises that you'd suggest to best fix the most common imbalances/weaknesses? If you had a gun to your head and had to pick 2–4 exercises for correction across the board, what would you choose? Gray's picks were, without hesitation, the following critical four: Chop and lift (C&L) Turkish get-up (TGU) Two-arm single-leg deadlift (2SDL) Cross-body one-arm single-leg deadlift (1SDL)

The Critical Four Schedule: Finding and Fixing Here is a potential schedule for putting it all together.