

# REVO LUTION *R*UNNING™

## MANUAL DESCRIPTIONS

### **Manual 1: Running Physiology**

Running includes a beautiful integration of cardiovascular, muscular, metabolic, and neurological systems that operate cooperatively to influence the transportation of oxygen, the extraction and use of that oxygen, and the use of the muscle fuels of fat and carbohydrate. Understanding how energy is produced to run is the basis for understanding how to train most effectively. If a runner wants to get faster or run without injury, every workout he or she does should have a specific, physiological purpose.

Manual 1 takes a comprehensive look at energy production through the 3 metabolic energy systems; the cardiovascular, metabolic, and muscular factors of running fitness and performance, including stroke volume, cardiac output, blood flow, hemoglobin, capillarization, mitochondria, and enzymes; carbohydrate and fat metabolism, including how each is affected by running pace; the physiology of the 3 running fitness and performance factors that make up the acronym of the certification's name—running economy,  $VO_2$ max, and lactate threshold; women-specific physiology, including the menstrual cycle, bone density, and pregnancy; and the physiology of aging and how it affects training.

### **Manual 2: Running Technique**

Most people who run just walk out the door and start running. They concern themselves with training-related variables, like pace and heart rate, but pay little or no attention to *how* they run. Proper running technique is the first step in becoming a runner or preparing for a race. Learning how to run more skillfully can help prevent injuries and enable runners to tolerate greater training loads since they will be undertaking the training with better skill. To become a better runner, start by running better.

Manual 2 dissects running technique and biomechanics, discussing elements of the running stride, including stride rate and stride length and their influence on speed, muscle activation, foot strike, pronation, leg shank angle, and arm swing. It even includes a cameo appearance from famed physicist Isaac Newton to explain how to optimize kinetic energy and ground reaction forces, and shares several running technique drills with instructions, pictures, and videos, and provides information on how to select running shoes.

### **Manual 3: Running Training**

Whether someone wants to run around the block or qualify for the Boston Marathon, how he or she trains can have a dramatic effect on his or her performance. Most runners do arbitrary workouts without having a systematic, progressive plan and they do workouts at suboptimal speeds because they don't understand the purpose of the workouts. Understanding all the training components and putting them together in a systematic training plan gives runners the blueprint for success.

Manual 3 begins with 18 important training concepts, delves into how runners adapt to workouts, and then explains the purpose of all the components of training and shows how to



implement them. Specific topics include how to target the 3 metabolic energy systems; how to train VO<sub>2</sub>max, lactate threshold, running economy, anaerobic capacity, and anaerobic power; specific details about how to design interval workouts with work periods and recovery intervals; how to plan and increase weekly mileage; how to plan training around a woman's menstrual cycle and pregnancy; how adaptation to training occurs and what that means for how to plan the training; week-by-week planning of training programs for different races, from half-mile to marathon; periodization; cross-training; strength training; altitude training; running in the heat; stretching; recovery nutrition and hydration; and aging.

#### **Manual 4: Running Workouts**

Running physiology, technique, training, injuries, and nutrition are all very interesting subjects and important to know to be an effective coach. But what the runner really wants to know is, “What’s the workout on Tuesday?”

Manual 4 gives detailed examples of workouts for all the training components with instructions and paces for each, including easy and long runs, lactate threshold runs and intervals, VO<sub>2</sub>max intervals, anaerobic capacity (speed endurance) intervals, anaerobic power (speed) intervals, hills, fartleks, race prep workouts, group workouts that can be done as games, and a variety of treadmill workouts.

#### **Manual 5: Running Injuries**

It’s an understatement to say that runners hate to be injured. It affects their lives in innumerable ways, none of which seem positive at the time it’s happening. When runners lose their ability to run because of injury, it’s easy to feel helpless, vulnerable, and even scared, because the fitness and vibrancy they get from running is taken away. Like a parent kissing his or her child’s boo-boo, it’s your job to make it all better.

There’s no good reason why so many runners should get injured. Yet it happens all the time, mostly because so many runners don’t train intelligently, or they follow programs that are faulty in design. The main reason why running injuries happen is because the physical stress is too much for the body to handle at that time. That stress can be due to biomechanical factors that cause excessive movement of the foot when landing on the ground and/or to training factors. Either case can cause too much force, a higher frequency of force, or a longer duration of force, which negatively impacts the joints or tissues.

Manual 5 describes the intrinsic and extrinsic factors of running injuries, shares 13 secrets of how to prevent running injuries, and describes the causes, symptoms, and treatment for the most common ones—just in case.

#### **Manual 6: Running for Weight Loss**

Not all people who run want to get faster or run races. Some run to lose weight. Running is the best exercise to lose weight and keep it off.



Manual 6 explains the 3 major reasons why running is effective for weight loss, delves into the principles of weight loss, discusses calories and metabolism, provides a review of the weight loss research, and explains strategies for burning calories and how individuals can use running to lose weight. It also includes a discussion on the partitioning of calories, eating to lose weight, and research-based recommendations for macro and micronutrients. Cameo appearances are made by French scientists Antoine Laurent Lavoisier and Pierre-Simon Laplace, who were the first scientists to study metabolism.

### **Manual 7: Running Programs in Gyms**

Running is the most popular exercise in the world, the most effective and fastest way to get fit, and the world's best calorie-burner. Thus, gyms can benefit from offering running programs to their members. Because running changes people's lives as well as their waistlines, they will keep coming back and bring their friends, which will increase gym member retention and new memberships.

Manual 7 explains different types of running programs that you can implement at gyms, including treadmill interval running classes (and how to teach the classes), fat-loss programs, race training programs, and one-on-one coaching, along with how to market the programs.

### **Manual 8: REVO<sub>2</sub>LUTION RUNNING™ Group Treadmill Class**

REVO<sub>2</sub>LUTION RUNNING™ takes advantage of the most popular exercise in the world with this one-of-a-kind treadmill group running experience. Participants will get sculpted legs, a big heart, unbridled self-confidence, and an inspiration that burns inside them for the rest of their lives. The REVO<sub>2</sub>LUTION RUNNING™ certification certifies you to teach REVO<sub>2</sub>LUTION RUNNING™ group treadmill interval classes at fitness clubs. At the heart of REVO<sub>2</sub>LUTION RUNNING™ classes is its name, which includes an acronym of the 3 physiological factors that determine running fitness: **R**unning **E**conomy, **VO<sub>2</sub>**max, and **L**actate **T**hreshold. To achieve results, the biology of running requires that workouts be designed to maximize these physiological factors. That's the secret of REVO<sub>2</sub>LUTION RUNNING™.

Manual 8 describes the group treadmill program and how to teach the classes, including communicating with the class, warm-up, cueing the workout, cueing technique, and cool-down. It also offers a menu of classes with descriptions and sample workouts, marketing the class, and license agreement.

### **Manual 9: Running Coaching**

Great coaches are great leaders. They don't just develop people; they equip people to develop themselves. To be an effective leader and coach, you must be self-aware. You must observe and, more importantly, reflect on how you and others do things.

There's a lot more to coaching than writing a training program. How do you go from the training programs you write to your clients running personal best times and continuing to get better year after year? How do you keep them motivated? How do you deal with different



personalities? How do you change what you say and how you say it depending on whom you're speaking to? How do you develop your emotional intelligence to balance your cognitive intelligence? How do you influence people to pay for your services? How do you teach your clients and athletes in addition to training them? How do you lead?

Manual 9 goes beyond the physiology and biomechanics details of coaching, focusing on important coaching topics such as leadership, personality, behavior, goal setting, how to establish trust, how to communicate with your clients, motivation, influence, coaching styles and philosophies, and the business of coaching.