



- **Almost everyone can experience greatly enhanced mobility and exercise with GlideCycle™ products**
- **Get a truly effective aerobic workout without damaging impact to joints and injuries**
- **Enjoy running and walking outdoors again without pain or restriction**

## **INTRODUCTION**

- GlideCycle™ defines an entirely new frontier in exercise and human mobility with a fun and highly effective form of low-impact, aerobic exercise.
- People who never expected to run are able to enjoy significant aerobic training benefits in spite of painful joints, permanent disabilities, sports and orthopedic injuries, various neurological conditions or challenges associated with excess body weight.
- The GlideCycle™ is the ideal cross trainer for athletes, runners, cyclists and fitness enthusiasts. It simulates the running motion more closely than any other exercise equipment without repetitive and potentially damaging impact. Moreover, GlideCycling™ strengthens and targets muscle groups that are neglected and become tight from the limited cycling motion.

## **FREEDOM TO WALK AND RUN**

- Individuals with mobility limitations have experienced the freedom to walk and run independently with friends, family and children while enjoying the outdoors.
- Athletes have been able to safely and effectively train faster through injuries and complete sports seasons with high-level performances.
- Others, including aging baby boomers, have an optimal fitness tool available, which will accommodate many of the physical barriers to effective and enjoyable exercise and recreation

## **UNWEIGHTED TRAINING CONCEPT**

GlideCycle's™ unweighting technology offers a tremendous, new advancement in rehabilitation, sports training and aerobic conditioning simply by allowing athletes and clients to train without impact to sensitive bones and joints.

Unweighted and low-impact training and rehabilitation are rapidly gaining momentum throughout the physical therapy, athletic rehabilitation, sports, baby boomer and general consumer segments. This concept is not new, however, to physical therapists that specialize in neurological and geriatric rehabilitation, and those specializing in athletic performance enhancement. Such therapists have relied on unweighted training for many years as an optimal mobility and rehabilitation solution for improved and accelerated therapy outcomes.

GlideCycle's™ unique and comfortable pelvic suspension system is the first of its kind. This revolutionary seating concept simply lifts clients by the pelvis without placing any pressure on sensitive perineal tissues, or relying on constricting, uncomfortable and time-consuming harness systems used by other devices. The desired amount of weight bearing may be achieved then, by simple strap adjustments or by using the treadmill incline/decline feature.

In addition, GlideCycle™ offers the only complete training system where patients can rehabilitate indoors on the GlideTrak™ and continue lifelong exercise outdoors on the GlideCycle™. Client acceptance is high and many describe unweighted movement as “a sensation of walking or running on the moon.”

GlideCycle™ products are simple to use, enjoyable for clients and provide a valuable and very cost effective rehabilitation and training tool for clinics, sports teams, fitness centers, adaptive sport, therapy and PE programs, and personal fitness.



## **NEUROLOGICAL REHABILITATION APPLICATIONS**

### **ABILITY TO WALK OR RUN**

- Allows many individuals with mobility impairments to get out of a wheelchair or set aside an assistive device and actually stand upright, walk or even run.

### **NORMALIZED MOVEMENT**

- Makes it possible for clients to walk with normalized movement patterns and muscle control in ways that would not be possible without unweighting.

### **SAFE EXERCISE**

- Shoulder harness system provides safety and stability while eliminating fall risk or fear of falling.

### **POSTURAL AND PROPRIOCEPTIVE STIMULATION**

- Integrates upright posture with environmental stimuli to enhance proprioceptive recovery.

### **MOVEMENT WITH CONFIDENCE**

- Provides confidence and stability necessary for multitask training, improving skill level, and encouraging reciprocating movements.

### **FUNCTIONAL IMPROVEMENTS**

- Improvements carry over into functional activities and ambulation.

### **ENDURANCE AND BALANCE**

- Gentle and effective endurance training, functional exercise and balance training.
- Significant stimulation and challenges to core and back muscles similarly to exercising on a therapy ball.

### **INCREASED WORKLOAD**

- Allows many patients with neurological conditions to achieve increased or desired workloads and training intensities for overall health and well being.

### **EASY ACCESS TO PATIENTS**

- Allows complete access to patients during use so that therapists may manually assist with leg placement, trunk and arm motions.

### **FACILITATION OF EXTREMITY MOVEMENTS**

- May use elastic bands for resisted exercise or to assist in facilitating movement of the extremities (such as hip flexion, knee extension, and prevention of ankle abduction or foot drop) even in situations with no muscular control.

## **ORTHOPEDIC APPLICATIONS**

### **IDEAL FOR PRE-OPERATIVE CONDITIONING AND STRENGTHENING**

- Ensures optimal health and post-operative progress.

### **ACCELERATED ACTIVITY AFTER INJURY OR SURGERY**

- Safe, pain free and accelerated introduction to gait normalization and running.

### **DIFFERENTIAL TRAINING**

- Able to train well leg while protecting and unweighting involved leg as much or as little as necessary, or perform single leg training.

### **PAIN FREE UNWEIGHTING AND WEIGHT-BEARING PROGRESSION**

- Simple strap or treadmill incline/decline features allow precise unweighting until movement and exercise become pain free and allows the patient to progress from minimal to moderate weight bearing status.

### **EARLY MOVEMENT AND GAIT TRAINING**

- Allows early gait training even before incisions are healed and before a patient can get into a pool. Appropriate for patients approved for partial weight bearing by their physician.

### **NATURAL MOVEMENT**

- Simulates a more natural walking and running environment than a pool by allowing gravity to challenge the body but without unnecessary or painful impact.

## **ORTHOPEDIC CONDITIONS**

### **IDEAL FOR POST-OPERATIVE TOTAL HIP PATIENTS**

- Enforces hip range of motion, including the difficult-to-achieve extension.
- Functional hip and lower leg strengthening without unnecessary shearing or impact.
- Allows return to lifelong walking and running exercise at desired intensity.

### **IDEAL FOR POST-OPERATIVE TOTAL KNEE PATIENTS**

- Excellent aid in restoring terminal knee extension and quadriceps function, especially in reverse treadmill mode, again without unnecessary shearing and impact.
- May begin gait training prior to incisions healing and prior to any aquatic exercise.
- Allows return to lifelong walking and running exercise at desired intensity.

### **IDEAL FOR POST-OPERATIVE KNEE REHABILITATION**

- Safe, pain free and early introduction to gait normalization and running.
- Functional, closed chain strengthening and conditioning without unnecessary shearing or impact.
- All muscles are challenged without significant stress to the tibiofemoral or patellofemoral joints.

### **EFFECTIVE FOR ANTERIOR KNEE PAIN CONDITIONS**

- May prove to be one of the single most effective forms of exercise for patients with the difficult-to-manage anterior knee/patellofemoral pain.
- Well tolerated by many even at high aerobic intensities.
- Actually allows chronic knee inflammation to subside by replacing painful activities with pain free exercise. Clients benefit from this type of “**active recovery**” through continued strengthening and conditioning.
- Muscles are challenged without significant stress to the knee or patellofemoral joint.

### **SIGNIFICANT UNWEIGHTING FOR FOOT AND ANKLE REHABILITATION**

### **SIGNIFICANT UNWEIGHTING FOR POST-FRACTURE REHABILITATION**

### **CHRONICALLY PAINFUL CONDITIONS**

- Avoids joint impact and excessive eccentric forces that induce post-exercise pain and muscle soreness.
- Offers a new exercise for many individuals with chronically painful conditions such as Osteoarthritis, Rheumatoid arthritis, Fibromyalgia.
- Alternative for those who cannot tolerate bicycling due to strain at the neck or pressure on sensitive hand tissues and wrist joints. GlideCyclists move in a more upright posture with little pressure to hands and wrists.
- Tolerated well by many individuals with various forms of back pain, including but not limited to: scoliosis, osteoarthritis and stenosis, less acute disc injuries, and healed fractures.

### **INTRODUCTION TO THE GLIDECYCLE™ USE OUTDOORS**

- The GlideTrak™ is a gentle and effective introduction for GlideCycle™ candidates.
- Allow clients to progress from GlideTrak™ therapy to independent and lifelong exercise outdoor on the GlideCycle™ for an optimal therapeutic outcome and compliance with a home exercise prescription.

## **SPORTS REHABILITATION**

### **EARLY TREATMENT**

- Offers early gait training and accelerated walking, running, aerobic conditioning and recovery from injury.

### **ACCELERATED CONDITIONING**

- GlideTrak™ may be used even before an athlete is able to safely or effectively condition on a stationary bicycle or in a pool.

### **EARLY RESTORATION OF RUNNING AND FUNCTIONAL MOVEMENTS**

- Allows early restoration of running form by minimizing impact.
- Provides more functional carryover to actual running and sports activity than stationary bicycling or other indoor machines that work muscle groups differently.

### **BROAD SPORTS APPLICATIONS**

- Applications extend to most sports, especially those requiring running.

### **PROTECTION OF INJURED LIMB**

- Allows pain free conditioning or training while protecting injured leg.
- Allows single leg training (just ask our “Amputeam” runners).
- Allows limited weight bearing of injured leg as necessary.

### **CROSS TRAINING AND ACTIVE RECOVERY**

- Provides opportunity for cross training and *active recovery* days.
- Makes it possible for athletes to increase the number of training days and intense or long workouts without excessive joint impact.

### **EARLIER SPEED AND POWER TRAINING**

- Allows earlier return to speed and power training with less soreness and stress to recovering tissues.

### **NATURAL MOVEMENT**

- More natural transition to running motion than from a pool or stationary bicycle.

- Movements in a pool against water resistance are slower and very different than an out of water running environment.
- GlideCycle™ training does not change the external environment or eliminate forces of gravity. It simply reduces the impact to joints and healing tissues.

### **OUTDOOR CONDITIONING WITH TEAMMATES**

- The GlideCycle™ allows injured athletes to condition outdoors with teammates and feel included in practices.

### **ACCESSIBLE TO MULTIPLE ATHLETES FOR RECOVERY AND CONDITIONING**

- GlideCycle™ allow s multiple athletes to train and condition at one time and are much less expensive than other rehabilitation equipment.

### **EXAMPLES OF SPORTS THERAPY APPLICATIONS:**

- Post-operative hip, knee, leg or ankle rehabilitation
- Anterior knee pain syndromes (Chondromalacia, extensor mechanism dysfunction, patellar tracking problems, various tendinopathies, bursitis)
- Ligament or joint injuries
- Muscle strains and contusions
- Turf toe, heel spurs, metatarsalgia, plantar fasciitis
- Various back or hip conditions

## **ATHLETIC PERFORMANCE ENHANCEMENT**

### **CROSS TRAINING**

- Powerful cross training tool for many sports.
- Ideal cross training sport for bicyclists as GlideCycling promotes use of upright postural muscles, significant core challenges, lengthening and strengthening of hip and leg muscles that are neglected by the limited range of motion and repetitive nature of the pedal stroke.

### **ACTIVE RECOVERY**

- Provides valuable active recovery workouts that allow maximal aerobic conditioning without the usual soreness, fatigue and eccentric tissue breakdown from standard training.

### **INCREASED TRAINING**

- Makes it possible for athletes to increase the number of training days and intense or long workouts without excessive joint impact.

### **CONDITIONING FOR LARGER ATHLETES**

- Effective mode of conditioning for large athletes, especially football linemen. May be used for off season weight loss or management and for building an endurance base prior to the start of a season. GlideCycle™ products are more comfortable on joints, promote enhanced running motion and help to prevent injuries, especially in larger or predisposed athletes.

### **EXAMPLES OF SPORTS PERFORMANCE ENHANCEMENT APPLICATIONS:**

- Stride lengthening and enhancement
- Power training with brake resistance (explosive starts)
- Speed training
- High knee running
- Reciprocal bounding (long jump approaches)
- Double leg bounding
- Single leg training

## **WEIGHT LOSS AND MANAGEMENT**

### **EXERCISE WITHOUT LIMITATIONS**

- Makes it possible for overweight and obese individuals to walk and run.
- First form of exercise for many that is not limited by pain, insufficient range of motion or very low activity tolerance.

### **MINIMIZED JOINT STRESS**

- Allows exercise at a significantly reduced body weight to minimize joint stress and pain, encouraging compliance and a sense of empowerment.

### **CONTROLLED WORKLOADS**

- Enables client and therapist to control workload and prevent rapid fatigue or overtaxing of musculoskeletal or cardiorespiratory systems.

### **IMPROVED EXERCISE TOLERANCE**

- Allows longer periods of exercise within target heart rate zones due to improved comfort, lower perceived effort and greater overall enjoyment.

### **FUN AND POSITIVE EXERCISE EXPERIENCE**

- Fun and comfortable exercise that stimulates a positive response from others.

### **SEAT ACCOMMODATIONS**

- Accommodates individuals up to 400 pounds.

## **GERIATRIC CLIENTS**

### **WALKING AND EXERCISE**

- Safe walking and exercise for many individuals who normally would not feel safe on a treadmill.

### **BALANCE AND ENDURANCE TRAINING**

- Gentle and effective gait, balance and endurance training, especially for those with balance impairments, joint pain, weakness or frailty.

### **SAFETY FEATURES**

- Shoulder harness system provides safety and stability while eliminating fall risk or fear of falling while upright.

### **MINIMIZED JOINT IMPACT AND STRESS**

- Allows exercise at a significantly reduced body weight to minimize joint stress and pain.

### **CORE STIMULATION AND CONFIDENCE**

- Stimulates and challenges core and back muscles similar to exercising on a therapy ball which is important to lower fall risk and improved confidence.

### **POSTURAL ENHANCEMENT**

- Facilitates postural muscle control and strength.

### **FUNCTIONAL IMPROVEMENTS**

- Improvements carry over into functional activities and ambulation.

## **NEW PROSTHETIC DEVICES**

- Accelerates gait training in amputees with new prosthetic devices by promoting safety and comfort during the period of muscular adaptation.

## **EXCEPTIONAL AEROBIC EXERCISE**

- Ability to exercise at high or low intensities.
- Geriatric clients may exercise at a safe intensity while even the highest level athletes can effectively challenge their aerobic and muscular systems.

## **EXCELLENT CORE STRENGTHENING AND BALANCE TRAINING**

- Athletes to older individuals.
- Multidirectional challenges to core muscles, back muscles and balance abilities.

## **HEALTHY INDIVIDUALS**

- Fun, effective, low-impact, life long form of exercise.
- More complete body workout than many other types of exercise, including core, postural and upper extremity muscles.
- The GlideCycle™ offers freedom and enjoyment for many who prefer outdoor exercise over confinement to indoor exercise on machines.

## **FITNESS CENTER APPLICATIONS:**

- Entirely new technology that allows unweighted walking and running like never before.
- Provides the first access to upright, effective, aerobic exercise for many individuals with disabilities.
- Allows transition from physical therapy and sports rehabilitation to independent health club workouts.

## **ADAPTIVE SPORTS PROGRAMS**

- Wide applications to recreational therapy and adaptive sports programs.
- Offers *upright* mobility opportunities in adaptive sports programs to people with a much wider range of disabilities.

- Applications include but are not limited to: Amputations, incomplete spinal cord injuries, traumatic brain injuries, strokes, Multiple Sclerosis, certain individuals with Cerebral Palsy, Parkinson's, obesity, joint deformity, arthritis and other painful conditions.
- Exercise opportunities for cancer survivors, individuals with peripheral vascular disorders and many others with other mobility limitations.
- Offers to the adaptive sports programs an entirely new competitive team and individual sport for both track and long distance events.
- Amputees and others can run upright at high speeds and long distances.

## **APPLICATIONS IN SCHOOL THERAPY AND ADAPTIVE PE PROGRAMS**

Unweighted therapy and training offer a truly exciting and effective new therapy, rehabilitation, recreation, athletic training and weight loss tool to our nation's schools. It is especially important for kids, teens and young adults in need of mobility enhancement and training. The following are some current and potential applications:

### **ADAPTIVE PE AND RECREATION PROGRAMS FOR YOUNG PEOPLE:**

- Above and below knee amputations
- Impaired joint integrity or deformities
- Obesity
- Neurological conditions: Cerebral Palsy, Spina Bifida, etc
- The need or desire for long range mobility

### **FOR THE MOBILITY IMPAIRED:**

GlideCycle™ products can offer an entirely new competitive arena of track and field sport. We have found most young people who are unable to run or do not enjoy running actually love the unweighted running experience that GlideCycle™ offers.

### **FOR GENERAL SCHOOL TEAM SPORTS:**

Unweighted therapy and training offers faster rehabilitation times and exciting opportunities for team players in recovery. Injured players can train and rehabilitate indoors on our GlideTrak™ under supervision, and then continue to rehabilitate outside on the GlideCycle™ with teammates weeks before possible with existing methods.

### **FUN FACTOR**

The great benefit of this type of training is that all ages, including kids, teens and adults love it!