

PRO FITTER 3D CROSS TRAINER



BALANCE • ENDURANCE • STRENGTH • STABILITY • AGILITY • MOBILITY

CONGRATULATIONS!

You've joined the Pro Fitter team!

You have now joined thousands of well-balanced people using the Pro Fitter to help increase their physical and mental health. The enclosed Pro Fitter 3D Cross Trainer is completely assembled and ready to go.

Prior to using your new Pro Fitter, please read the following steps:

1. Read and make sure you understand the enclosed instruction sheets and view the entire DVD included in this package:
 - DVD Part 1 - General Exercises, 18mins
 - DVD Part 2 - Medical Applications, 10mins

Be certain you completely understand the correct tension setting for the users's weight and skill level (see page 3 or exercise chart).

2. Complete the Warranty Card online at: www.fitter1.com/warranty-registration. This will entitle you to full warranty on your Pro Fitter. **PLEASE NOTE THAT YOU MUST COMPLETE THIS WARRANTY FORM TO ACTIVATE YOUR TWO-YEAR WARRANTY.**

We are confident you will enjoy this valuable addition to your personal fitness and/or rehabilitation program. We welcome your comments and ideas. If we can improve our service or products in any way, we would love to hear from you.

Satisfaction is guaranteed – try any of our products for 60 days after you receive them. If for any reason you are not satisfied with this equipment, first notify us*, then return the product in its original packaging for a full refund of the purchase price less shipping costs.

Very Important: Returned products will be accepted by Fitter with a return authorization number assigned by our Calgary Corporate Office. Please contact Fitter International Inc. at: **1-800-fitter-1** or e-mail us at customerservice@fitter1.com to receive shipment authorization and shipping instructions.

We appreciate your business and look forward to serving you in the future.

Sincerely,
The Fitter Team

Inside This Box

PRO FITTER 3D CROSS TRAINER:

- Pro Fitter
- Attachable Soft Ankle Board
- Instructional DVD, Laminated Exercise Chart & Pro Fitter Manual

PRO FITTER 3D CROSS TRAINER PHYSIO KIT:


- Pro Fitter
- Attachable Soft Ankle Board & Hard Ankle Board
- Pair of 51" Balance Aids
- Instructional DVD, Laminated Exercise Chart & Pro Fitter Manual

READ THIS NOW, BEFORE USING THE MACHINE

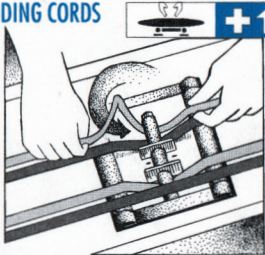
Important Notice: By stepping onto this machine you accept full responsibility for your actions; as you may fall or lose your balance. Expect it to take 1 to 3 minutes of use to initially become familiar with the rhythm of shifting your weight on this device. Always maintain a good heads-up posture, and remember that quality of movement is more important than distance traveled.

Getting Started

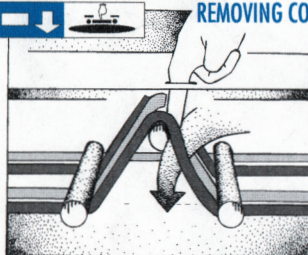
- 1: Adjust the resistance cord setting appropriate to your weight (refer to diagram below).
- 2: Gently step up onto the foot pads. Expect the skate to move freely - up to 4”.
- 3: **VERY IMPORTANT:** Keep your head up and eyes focused in front of you. Do not look down at your feet. Maintain good posture with your hands slightly forward.
- 4: Start with short, controlled weight transfers from one foot to another. Do not try to travel to the end of the machine until you are familiar with the skill and balance required to operate this machine safely.
- 5: Read the manufacturer’s warning (see page 4), review the exercise chart and view the DVD for proper use.



ADDING CORDS

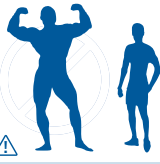
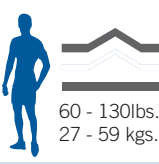
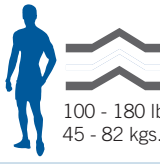
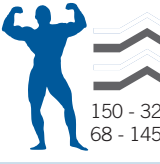



REMOVING CORDS




Pro Fitter 3-D Cross Trainer

◀ More Balance Required
More Strength Required ▶

 <p>0 - 70 lbs. 0 - 32 kgs.</p>	 <p>60 - 130lbs. 27 - 59 kgs.</p>	 <p>100 - 180 lbs. 45 - 82 kgs.</p>	 <p>150 - 320 lbs. 68 - 145 kgs.</p>
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light  **ON**

heavy  **OFF**

⚠ WARNING: USER ACCEPTS FULL RESPONSIBILITY. PRACTICE EXTREME CAUTION WHEN USING THIS BALANCE DEVICE

Before stepping onto this equipment: • Check for proper resistance setting • You must have doctor approval before beginning any exercise program

• Keep children at safe distance • Ensure area is flat, clean and dry



MANUFACTURER'S WARNING

This equipment is designed to enhance the user's balance skills in a controlled environment. The user accepts total responsibility for injury to himself/herself or others. Only use this equipment after you have a complete understanding of its function and intended purpose.

By stepping onto this equipment the user accepts complete responsibility and acknowledges agreement to these terms:

1. User has read and completely understands operational directions.
2. User has inspected equipment to ensure correct cord tension setting.
3. User has had approval to engage in this activity from his/her doctor.
4. User agrees to safety first - children must have adult supervision. Use Fitter products only for the purposes for which they are intended.
5. User accepts total responsibility and assumes all risk involved in using this equipment, and waives any rights to themselves, their heirs, their executors or any other party to hold the manufacturer or its representatives responsible for any direct or indirect damages whatsoever, caused by use of this equipment.

Maintenance

Basic maintenance of your Pro Fitter is important, regardless of whether you use it a little or a lot. Here are tips, which are designed to help you keep your Pro Fitter in top conditions.

TRACKS

The Top Track of the Pro Fitter 3D Cross Trainer must be cleaned and lubricated regularly to prevent cracking. Simply wipe the track clean, then apply WD-40 (or similar) on the entire track surface. The track should be replaced at first reasonable sign of wear or if cracked.

Bottom tracks should be cleaned with soap and water only. Refrain from using any lubricants on the bottom tracks to prevent slipping. Replace if the grey, non-slip material on the bottom tracks wears away.

CORDS & TENSION ADJUSTMENT

Inspect at each cleaning. Due to travel around the rollers, fuzzy cords are normal. However, exposed rubber strands indicate cord wear. As you use the Pro Fitter, try switching cords (outer two in the center and center two on the outside) to prolong life. If you see any exposed rubber strands, replace the cord immediately. See page 3 for proper cord set up.

ROLLERS

Check all rollers for a smooth rolling action and a firm mounting; there are two rollers on the base and one three-piece roller on the skate. This is basic maintenance and should be a regular routine. If you hear any unusual sounds while using the Pro Fitter, check them out immediately, or have someone else look at the machine if you are unsure. If you have any questions regarding rivets, bolts, rollers, etc, please call us.

PLACEMENT

Keep your Pro Fitter in a clear area away from other machines, this is especially important as people become more confident and aggressive when using the machine. In many ways using the Pro Fitter is like participating in skiing or any other sport. Play safe by knowing and maintaining your equipment.

For replacement parts, see page 11. Only use with Fitterfirst replacement parts.

Safety

Enclosed is your laminated exercise chart. Please keep it visible at all times for new users to read before stepping onto your Pro Fitter. Use your Pro Fitter with care and caution - think safety first. Enjoy your Pro Fitter and all it has to offer for a well balanced, FUNctional exercise and rehabilitation program.

If you have any questions or concerns with regards to the safe and correct use of this equipment, please contact us.

BENEFITS

Core Stability

Core stability in your body can be likened to the foundation of a building. It is a stable muscle base, consisting of the abdominal group of muscles, the gluteal muscles and the erector spinae up the sides of the spine. Core stability gives you the 'trunk strength' and flexibility needed to function, injury and pain free, in day-to-day living. Using Pro Fitter helps improve the harmony of your muscle movement and core stability!

Proprioception

Proprioception is the body's ability to react appropriately to external forces. Often referred to as 'muscle memory' or 'neuromuscular awareness', proprioception is instrumental to an active, injury-free lifestyle. Highly skilled athletes develop superior proprioception to help them use their muscle strength and endurance more efficiently. Proprioceptive exercises help form the basis for balance, coordination, strength and agility, which are required to overcome injury and improve sports performance. Pro Fitter integrates muscle development and proprioceptive training efficiently into one activity.

Unique Design

The unique rocking motion from the Pro Fitter gives you another dimension of movement not found on other products. Rubber mounted foot pads independently flex and rotate to minimize stress to the knee and ankle joints, while improving your stability and confidence. These features allow you to develop a precise weight transfer, superior lower leg strength and for skiers, outstanding edge setting technique.

Quality

Pro Fitter's streamlined, lightweight and efficient design weighs 20lbs (9kg) and has been proven durable by professional teams, hospitals and Olympic training centers around the world. The Pro Fitter is made of aluminum with oak sides and solid brass bushings in molded wheels that glide quietly over its rocking base. Quality construction guarantees a maintenance-free machine and long term durability for personal, clinical or institutional use.



Practice **STABILITY** in daily living to improve **AGILITY** at play and to enhance **MOBILITY** for life.

RESEARCH & ARTICLES

Pelvic Stability...A Question of Balance

by Louis Stack, Canadian National Speed Skiing Team 1992-1995

Since developing the Pro Fitter eighteen years ago, I have observed tens of thousands of people using it at consumer and medical conferences around the world. During the past three years I have been surprised to observe that approximately one in five people who step on the Pro Fitter have a problem with muscle imbalance in the trunk, hip and lower back areas.

Often, these individuals display a lateral weight shift that involves significant rotation in the lower back and pelvic region. From conversation with them, I have learned that the majority of them have previously experienced some level of trauma to the ankle, knee or hip on the involved side. It has been my observation that this pelvis rotation generally stems from a muscular adjustment made in the trunk region to accommodate the non-weight bearing phase following a lower extremity injury.

The goal of this article is to outline some methods of using the Pro Fitter to help identify and possibly correct this situation, especially in cases where the knee and ankle are normal.

After my own experience of rehab from knee and foot surgery (1979, 1983) and as a member of the Canadian National Skiing Team (1992), I personally know that pelvic muscular imbalance can lead to improper weight shift when turning on skis. For most skiers this rotation increases the difficulty in turning because they tend to rotate toward and lean back on the tail end of the edging ski. This stance decreases gluteus medius activity, placing more emphasis on hip flexor activity. It also requires a contraction of the lower back muscles on the opposite side to balance the movement. Many skiers complain of a weak turning side and of lower back pain. I believe that pelvic rotation and muscular imbalance may be part of the problem.

After observing thousands of Pro Fitter users, it is clear that the majority of people who display pelvic rotation have experienced a previous trauma to the lower extremity on the involved side. Secondly, many of the subjects also indicated that they have experienced regional pain in the lower back on the opposite side. There is ongoing evidence that suggests that the Pro Fitter helps train the trunk and hip girdle muscles to participate in proper stabilization while exercising the lower extremities. With a focus on muscular balance and strength, using the Pro Fitter may help achieve improved pelvic posture while decreasing the frequency of regional pain syndromes.

In a general patient population, the Pro Fitter can easily be used with or without balance aids to evaluate and improve situations.



Correct Posture



Incorrect Posture



Power Thrust

With your Pro Fitter, try the following steps on a number of your patients and see what your test results suggest:

1. To begin, observe the patient while he/she is using the Pro Fitter for the first time. Encourage proper foot placement and upright stance (figure 1). Watch for any postural reactions that may indicate muscular imbalance (figure 2).
2. It is common to see any or all of the following:
 - Tilted/rotated head and shoulder position
 - Rotation and over compensation of upper body movement
 - Aggressive use of balance aids when shifting to the involved side
 - Rotated and tilted trunk and pelvic girdle to the involved side
 - Instability in the ankle and/or knee on the involved side
3. On a light tension setting, have the patient perform 8-15 power thrust exercises on each side while observing for the previous indications (figure 3). Muscle fatigue may become a factor with this exercise and cause the patient to adjust his/her pelvic position even further to the rear on the involved side. At this point, you will have gathered enough information on the patient's movement patterns to determine which involved muscles require strengthening and which are currently being overused. Other concerns that require further investigation may also be identified. Now you can assign the patient exercises such as power thrust variations (figures 3, 4, 5, 6). Position the trunk in such a way that the correct muscle groups can be strengthened while minimizing the involvement of the overused muscle groups.

I hope that this process will give you an additional method to help evaluate muscular strength in the pelvic region. These exercises will help improve the patient's natural muscular movement patterns while giving you some useful new ideas for ways to use your Pro Fitter. You may even notice a decrease in the frequency of regional pain syndrome.



Forward Rotation



Rear Rotation



Ab/Adduction

Stroke Rehabilitation Using a Pro Fitter

by Margaret Johnstone FCSP, Scotland

The Pro Fitter can assist in a planned program of stroke rehabilitation. In early stroke rehabilitation the early stroke patterns must be advanced until reflexes are re-integrated into cortical control. After the client is well versed in spasticity inhibiting and rolling patterns, progress to kneeling and crawling activities. Then, using the Pro Fitter and the necessary air splint, assign specialized exercises to assist recovery from the brain damage of stroke. To limit the development of spasticity the antigravity muscles must be inhibited; the forearm and hand must be used in extension patterns, and the rest of the body used in flexion patterns.

The following photos and illustrations show some of the very useful exercises I have used with stroke damaged patients. Many of the patients are quite capable of using the Pro Fitter in kneeling and sitting positions but with some I would not risk balanced standing and rocking from side to side. The boy shown here took several weeks to master this exercise after rehabilitation was started. He hoped to get back to skiing.

I have written a handbook for therapists called Therapy for stroke, Building On Experience published by Churchill Livingstone, Edinburgh, London, Melbourne, New York and Tokyo, 1991.* It gives an introduction to the pressured garments while presenting a practical way to advance through motor and sensory loss.

1. Crawling Position

With air splints in position to inhibit flexor tone in the forearm/hand and with a small inflatable boot to inhibit the extension of the ankle, the Pro Fitter is used to allow the client to push the arm forward in the required inhibiting position. Tension (or resistance) against this forward thrust is given by the weakest of the four tension cords hooked

underneath the Pro Fitter. As weight is withdrawn from the forward thrust, the Pro Fitter's resistance then assists the arm back into the starting position. This is a valuable exercise with ease of repetition.

2. Side to Side Thrust

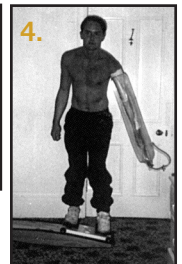
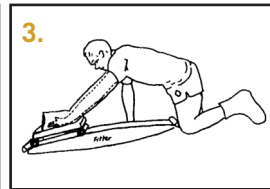
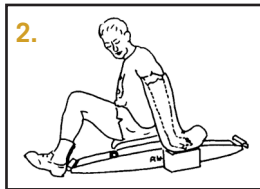
With the legs in the inhibiting flexion pattern and keeping the trunk straight, laterally shift on the Pro Fitter from the knees to the trunk. This combines lateral trunk stretching with a useful shoulder exercise. The involved hand may require a stabilizing strap over the Pro Fitter's platform to keep the hand in proper position.

3. Sitting Position

Sitting on the Pro Fitter offers several ways of presenting valuable exercise. As illustrated here pulling the body weight forward towards the heels brings in a useful hamstring exercise. The hamstrings are invariably very weak and must be reeducated to rehabilitate stability of the knee. Thrusting forward on the stabilized hand helps to exercise the whole affected side of the body in a total inhibiting pattern, providing the heels assist in the pull forwards.

4. Standing Position

Toward the end of rehabilitation, some clients may be ready to tackle exercise 4, but I would not attempt it with the elderly. The young man illustrated here was keen to get back to skiing, two years after a stroke. He took several weeks to master this exercise and it was obvious that his balance and motivation improved remarkably with the use of the Pro Fitter.



Other books by Margaret Johnstone, FCSP on stroke rehabilitation include: Restoration of Motor Function in the Stroke Patient - A Physiotherapist's Approach; The Stroke Patient - A Team Approach; Home Care for the Stroke Patient - Living in a Pattern; Restoration of Normal Movement After Stroke. All published by Churchill Livingstone.

Balance Problems Found Treatable by Training

From Tribune News Service (USA), Reprinted in China Post (Taiwan), December 1992

So many people who slowly lose the ability to maintain their balance can reverse much of that decline through a program of exercise and balance training, a study has found.

In generally healthy people as old as 90, exercise and balance training can reduce the tendency to fall by 50 percent, according to the study.

Approximately one-third of older people experience a fall each year, with one in 20 falls resulting in serious injury. Each year, about 250,000 Americans fracture their hip, resulting in long-term disability, pain, and in 10 percent of hip fractures, death.

"Falls and impaired mobility are critical problems for older people," said Dr. Leslie Wolfson, Chairman of the Department of Neurology at the University of Connecticut Health Center in Farmington.

Wolfson's study, supported by the National Institute on Aging in Bethesda, MD., is one of eight around the country aimed at improving gait and balance in the elderly, said Dr. Evan Hadley, Associate Director for Geriatrics at the Institute.

"We think it's a very promising line of research, and could point the way to techniques to keep people independent and avoid the need for nursing homes, Hadley said. Wolfson's three-year study on reduction the risk of falling, only recently completed and not yet published, grew out of an earlier study published in the November issue of the journal Neurology.

The Neurology study compared 34 people whose average age was 34 and with 234 people whose average age was 76. Using a special electronic device called a computerized dynamic posturography platform, Wolfson placed people in a closed space where the floor they stood on would move and rotate up, down, forward and back. Sometimes the walls would move in sync with them, and other times the walls would remain motionless tricking their eyes and making it more difficult to stay upright.

"It would be like getting on a bus and having it stop suddenly," Wolfson said.

The study found that elderly people kept their balance almost as well as younger people when the

platform remained relatively steady, but were less steady when the platform began swaying in various directions.

But people aged 80 and over did only slightly worse than people aged 70, suggesting that age-related loss of balance is negligible, Wolfson concluded.

Older people got better at maintaining their balance the longer they were tested, suggesting that they could benefit from training, he said.

That insight led Wolfson to conduct his second study to see how exercise and balance training would improve elderly people's balance.

In the second study, 108 people aged 70 and older, all of them in relatively good health were trained for three months with weights and exercises on padded surfaces. Trained coaches stood nearby to catch them in case they fell.

Wolfson found that after three months of training, the people almost lost their balance only half as often as they did before the study.

The take-home message for seniors: their sense of balance can be improved.

The first thing you look for medically treatable diseases, Wolfson said. For instance, treating Parkinson's disease can improve balance. And many medications can worsen a person's sense of balance if a doctor doesn't adjust the dosage, Wolfson added.

Strengthening exercises can be done under the direction of a physical therapist or in a senior exercise program, said Wolfson. He recommended walking and stair-climbing for seniors trying to improve their sense of balance.

Torso and Hip Muscle Activity and Resulting Spine Load and Stability While Using the Pro Fitter 3-D Cross Trainer

Priyanka Banerjee, Stephen H.M. Brown, Samuel J. Howarth, and Stuart M. McGill - University of Waterloo, Journal of Applied Biomechanics, 2009, 25. 73-84.

ABSTRACT: The ProFitter 3-D Cross Trainer is a labile surface device used in the clinic and claimed to train spine stability. The purpose of this study was to quantify the spine mechanics (compression and shear forces and stability), together with muscle activation mechanics (surface electromyography) of the torso and hip, during three ProFitter exercises. Trunk muscle activity was relatively low while exercising on the device (<25%MVC). Gluteus medius activity was phasic with the horizontal sliding position, especially for an experienced participant. Sufficient spinal stability was achieved in all three exercise conditions. Peak spinal compression values were below 3400 N (maximum 3188 N) and peak shear values were correspondingly low (under 500 N). The exercises challenge whole-body dynamic balance while producing very conservative spine loads. The motion simultaneously integrates hip and torso muscles in a way that appears to ensure stabilizing motor patterns in the spine. [...]

Is It Possible to Prevent an ACL Rupture?

C. Cerulli, C. Asia, G. Bensi & M. Proietto - Terni, Italy

COMBINED CONGRESS OF THE INTERNATIONAL ARTHROSCOPY ASSOCIATION AND THE INTERNATIONAL SOCIETY OF THE KNEE

The purpose of this study is to establish whether a precise proprioceptive gymnastic program can reduce ACL rupture due to a cutting mechanism.

MATERIAL & METHOD: We followed 2 groups of 300 soccer players for 2 seasons (1987-89). The conditions of the players were equal: semi-professional and amateur league, no previous knee injuries, grass fields, similar shoes, age 17-25 years.

Athletes were examined before the competitive season. A clinical evaluation determined ligamentous laxity (Veli's score), knee stability (also using KT-1000), presence of lower limb paramorphism and isokinetic evaluation (Cybex II).

Both groups A and B underwent the same training program with one variant; Group B performed proprioceptive daily exercises on a Freeman board (wobble board). At the termination of the observation period, we compared cases of ACL rupture caused by a cutting mechanism.

RESULTS: Group A: 67 cases (22.3%) of all ACL tears; diagnosis done using clinical evaluation, arthroscopy and MRI or ST-Scan

Group B: 10 cases (3.3%) of ACL tears.

CONCLUSIONS: By following an adequate proprioceptive exercise program, a decrease of 19% of ACL tears caused by a cutting mechanism was obtained.

Proprioceptive exercises serve to stimulate ACL and to give better control muscle tone-thropism and joint movement coordination, these being important factors in preventing ACL rupture.

PRO FITTER ACCESSORIES & REPLACEMENT PARTS



Soft Ankle Board

Accessories

Soft Ankle Board

An attachable accessory that provides a more stable surface for standing, upper body, and sitting core exercises. Attaches over top of the footpads to remove the independent action of the feet.

Hard Ankle Board

It provides a more stable base for standing, upper body or core exercises with the Pro Fitter. Ideal for early rehabilitation or seniors.

Balance Aids

Lightweight 51" poles with self standing 9" bases (sold in pairs).



Hard Ankle Board

Replacement Parts

Top & Bottom Tracks

Sold in pairs (top and bottom tracks sold separately).

Tension Cord Kit

Contains two heavy and two light tension cords.

Wheel Kit

Contains 4 replacement wheels.

Mount Replacement Kit

Contains 4 replacement rubber mounts and grip tape.

Axle & Wheel Rebuild Kit with Bushings

Contains 2 replacement axles and 4 wheels with bushings.

Rebuild Kit

Contains the two most used parts on the Pro Fitter: top tracks (pair) & tension cords (two heavy and two light).



Balance Aids



Tracks



Tension Cord Kit



Wheel Replacement Kit



Mount Replacement Kit

OTHER GREAT PRODUCTS



Professional Balance Boards



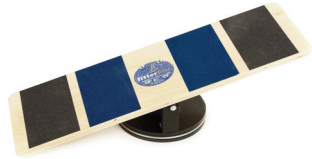
Professional SRF Board



Bongo Board



Classic Sit Disc



Extreme Balance Board Pro



Soft Boards



Classic Exercise Ball Chair



Travel Roller Line

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Disclaimer/Warning: The products presented in this booklet are designed to challenge and improve your balance skills. When using this equipment, you must accept full responsibility for the risk of injury to yourself and to others. Please read and fully understand all instructions before using these products. Remember, the best protection from injury is a little common sense!