

# IsoPUMP Exercise System

POWERED BY NEUROMUSCULAR TECHNOLOGY

IsoTechnology 



# IsoPUMP Exercise System

## THE SOLUTIONS

- ◆ The IsoPUMP system is really three systems in one: evaluation, conditioning and a proprioceptive re-training system.
- ◆ By combining all these systems in one unit, the IsoPUMP system allows the rehabilitation or training professional to diagnose, treat, test, train and develop the patient or athlete on one machine in one session.
- ◆ The IsoPUMP system is designed for isometric, eccentric and isokinetic development.
- ◆ Forces applied are monitored and the data is gathered and captured for further analysis and review. There are six basic exercises, and the system is designed to be even more flexible when used by rehabilitation specialists and trainers.
- ◆ The basic exercises are leg press, bench press, lunge. Each of these exercises can be performed in an isometric or eccentric exercise manner. The IsoPUMP requires a total exercise time of 60 minutes per week for major strength gains.
- ◆ Specialized exercise by means of the IsoPUMP Exercise and Rehabilitation equipment creates substantial differences in cardiovascular activity levels and strength.
- ◆ The IsoPUMP is an exercise and rehabilitation device that provides a total body isometric and eccentric exercise performed in supine and upright positions. Therefore it evokes chemoreflex (metaboreflex), mechanoreflex and central command responses as well as changes in posture during the exercise phase.





## The IsoPUMP Evaluation Software

- ◆ The IsoPUMP evaluation software consists of a data and video acquisition module that analyzes multiple sources. The video and input data are synchronized and then displayed.
- ◆ Additional measurements and calculations are made from the video capture. This allows for the viewing of different session information for one user or the comparison of one individual with a second individual. All information is stored electronically for recall. Stored information can be printed as required.
- ◆ DVD or Videos can be copied immediately for training purposes. Notes can be added to individual frames for email. Video can be obtained “onsite” and calculation measurements made immediately via laptop or later in the office. All information can be transmitted electronically for additional comment. You can “ghost” selected exercise actions of an athlete or compare one athlete’s technique to another. Goal setting to a “perfect technique” is thus achievable.



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## MARKET ADVANTAGE

- ◆ The IsoPUMP provides a computer controlled-force servo mechanism with appropriate sensors and feedback to provide accurate simulations of virtually any force the human body segments are likely to encounter. Forces not practically obtainable by any other current exercise system e.g. negative resistance. These include controlled isotonic, isokinetic and isometric forces.
- ◆ The IsoPUMP allows you to easily adjust the nature , displacement, velocity, acceleration and force magnitude. You don't have to purchase a separate machine for every exercise application.
- ◆ 30 years of Research, Development and Refinement have gone into producing this state of the art rehabilitation and exercise equipment.
- ◆ Up to 300% increase in average strength in MS patients and 20% for all athletes over 12 weeks. (see Yates Research results for MS patients. Ref. JAOA—Vol. 102 –No5, May 2002).
- ◆ Efficient use of your exercise time. No weights. Variable speed drive. Variable force application.
- ◆ State of the art electronic monitoring and reports.
- ◆ Long lasting stainless steel construction.
- ◆ The benchmark in evaluation and strength development.

## MARKETS

IsoPUMP can provide rehabilitation and maximum strength development to a number of markets:



# WHO IS

## ISOTECHNOLOGY

- ◆ IsoPUMP has been pioneered by Dr Terence Vardy, an international expert in medical devices, and his qualified team, over the past 35 years.
- ◆ Dr Vardy, whose educational credentials and qualifications are extensive, has also:
  - Practised in Harley Street, London, United Kingdom from 1988 to 1991.
  - Lectured at NASA – at the Ames Research Center, San Jose and Houston Space Center between 1994 and 1997 on Exercise Countermeasures for -1G.
  - Consulted to US Government Officials on health and medical devices development.
  - Been a Prime Contractor to the USA Government Department Of Defense from 1999.
  - Been extensively involved in various research projects in the USA, UK, Australia and Russia, and has a number of articles published across a wide range of related medical topics.
- ◆ IsoTechnology has assembled a team of technical and industry experts to assist in the development of this technology. These research personnel and associates, located in various countries, are actively working with the product to ensure the the company develops the leading edge technology in every aspect – practically and efficiently.



**Dr. Terence Vardy**  
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# ISO PUMP

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