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LigMaster[™] - by Sport Tech, Inc., a subsidiary of Ciconia, Inc.

LigMaster measures joint translation in response to an applied force. By comparison with the opposite, normal joint, it supplies information on the extent of ligament tear and laxity. Comparison in time series with the same joint provides information on response to treatment.

The Windows based software runs on any PC or laptop with a USB port and displays the data in a number of different formats that allows ligament damage to be expressed as percentage tear and or mm of slack or laxity in the ligament.

LigMaster is portable and versatile. A typical laptop computer can power the system for several hours on a single battery charge!

To perform an examination, the technician positions the joint under investigation in the stress frame and turns the force handle slowly to apply a small measured force to displace the joint.

LigMaster is based on the Telos GA - II/E stress device, which has a long history of safe clinical use.

The LigMaster[™] software, which runs on a PC computer or laptop, collects data from electronic sensors on the arthrometer. These data are displayed in a graph of force against strain in the tested ligaments.

To determine the percentage tear or mm laxity in the injured ligaments, a comparison with the opposite, normal joint is necessary, unless the affected joint was examined by LigMaster before the injury happened, in which case a comparison in time can be made. Comparisons in time may be advantageous for athletes and high-risk patients. They may benefit from having documented, 'pre-season' LigMaster data on record, to be used when an injury occurs.



The LigMaster[™] is an instrumented arthromer that can provide a fast and easy assessment of ligament function for joints of the shoulder, knee, ankle and elbow.



LigMaster is capable of determining the percentage tear and laxity in all of the most commonly injured ligaments of the ankle, knee, elbow and shoulder



A shoulder exam can provide information on the anterior glenohumeral ligaments with the upper arm 90^o abducted and externally rotated.

A valgus stress test with the elbow flexed at 25^o is used to examine the medial ulnar collateral ligament.





The validity of the LigMaster method has been verified in over 1000 clinical patients

LigMaster can be used to evaluate all of the important ligaments of the knee, including the ACL, PCL, MCL and the LCL (shown).

> An ankle inversion exam is used to evaluate the lateral ankle ligaments, an eversion exam to evaluate the deltoid ligaments.





Sporlech, Inc.

Sport Tech's mission is to provide the sports medicine professional with innovative diagnostic equipment for the injured athletes. Our goal is to apply advanced engineering and biotechnology to the field of sports medicine and help our customers provide the best possible diagnosis, treatment, monitoring and rehabilitation of sports injuries. Sport Tech encourages customer feedback and new feature requests as we continuously improve our products to stay ahead on the leading edge of sports medicine instrumentation.

The LigMaster system is currently used in clinical studies at the University of Virginia, University of Florida, Indiana University, Arizona School of Health Sciences, University of Georgia and the American Sports Medicine Institute at Birmingham, Alabama. Studies using the LigMaster have been completed with over 1000 subjects examined cumulatively.

> LigMaster[™] is made in the United States of America and protected by United States patents 6,419,645 and 5,724,991

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www.ligmaster.com