



CLINICALLY PROVEN
ACL Protection & Injury Prevention

DONJOY®



ACL INJURY FACTS & FIGURES

APPROXIMATELY
200K
ACL INJURIES OCCUR
ANNUALLY IN THE U.S.³

POST- ACL SURGERY BRACED, PATIENTS

17 YEARS
AND YOUNGER HAVE A SIGNIFICANT
DECREASE IN RISK OF ACL
GRAFT RUPTURE.²⁸

ON AVERAGE
70%
OF ACL INJURIES ARE
NON-CONTACT RELATED⁴

WOMEN ARE ON AVERAGE

6X
MORE LIKELY
TO INJURE THEIR ACL⁵

Defiance® PRO

BRACE FOR IMPACT

REASONS TO BRACE POST ACL RECONSTRUCTION

CONTRIBUTING FACTORS TO RE-INJURY

- Decreased knee flexion angle¹
- Anterior tibial shear forces²
- Combined valgus and knee internal rotation moments²
- Combined valgus and knee external rotation²
- The re-injury rate for the ACL reconstructed knee is 1.8%-10.4%⁶
- Risk of ACL injury to the contralateral knee is double that of the reconstructed knee⁶
- 43% of competitive college and high school football players return to the same level post-reconstruction (AJSM 2012)
- Re-injury rate is 6x greater for patients post-reconstruction versus an uninjured patient⁹
- Re-injury rate is 5x higher in females compared to healthy females⁹
- Females are 2x more likely to have an injury to the contralateral knee⁹
- For every month that a patient's return to sport was delayed through 9 months post reconstruction, rate of re-injury was reduced 51%¹⁰

HIGH COMPLIANCE IN YOUNGER PATIENTS WITH 77% OF THEM WEARING A FUNCTIONAL KNEE BRACE FOR 1-2 YEARS POST-SURGERY.²⁸

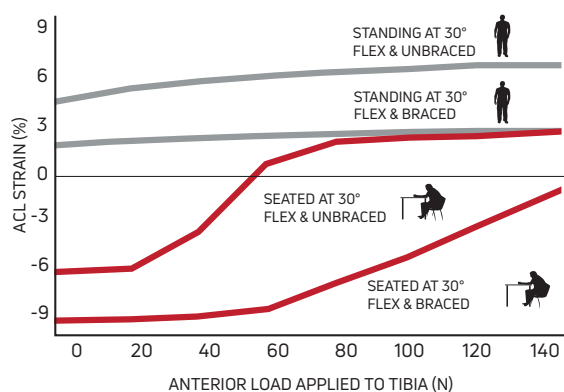


DONJOY® ACL PROTECTION



4-POINTS-OF-LEVERAGE-STUDY

A 4-POINTS-OF-LEVERAGE BRACE WILL
DECREASE ACL STRAIN BY AT LEAST 50%.



ACL strain values produced by anterior tibial loading.

Braces utilizing 4-Points-of-Leverage technology effectively reduce ACL strain which could be particularly important during rehabilitation while the graft is remodeling.^{11,12,13}

WEARING A 4-POINTS-OF-LEVERAGE™ BRACE:

- Decreases ACL strain by 50% for anteriorly directed loads during weight bearing and non-weight bearing activities^{11,12}
- Significantly reduces tibial rotation vs. unbraced and sleeved groups¹⁴
- May improve both proprioception and postural control¹⁵
- Increases patient confidence after ACL reconstruction¹⁶

FOURCEPOINT™ HINGE + 4-POINTS-OF-LEVERAGE™ =

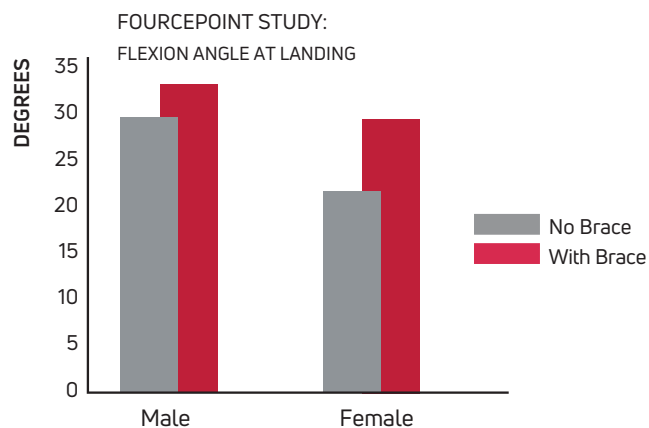
Increases flexion angles, reducing anterior shear forces and strain on the ACL and thus significantly decreasing the chance of injury.



FOURCEPOINT STUDY

FourcePoint hinge improves joint mechanics of both knees post ACL surgery.

- Keeps both knees out of the “at risk” zone (0-30 degrees).
- Significantly increases knee flexion angle at peak posterior ground reaction force (PPGRF) by 9° vs. a standard braced knee and a non-braced knee^{17, 19}
- Significantly decreases PPGRF during stop jump task landing and side-cutting activities¹⁷
- No significant performance limitations were associated with the knee brace with FourcePoint hinge technology¹⁷



The anterior shear force applied on the tibia was reduced by 9% for females & 13% for males.²⁰

The decrease in anterior shear force on the tibia should substantially reduce the load on the ACL.^{18, 20}

ACL INJURY PREVENTION

PROPHYLACTIC BRACING SIGNIFICANTLY
REDUCES THE NUMBER OF KNEE
LIGAMENT INJURIES.²⁷

CONTACT

Reducing the risk of high impact
knee ligament injuries

PROPHYLACTIC BRACE USE

FOOTBALL

- **NFL offensive line study showed braced athletes had significantly less injuries versus their unbraced counterparts²⁷**
- May be effective in reducing the risk of incurring an MCL sprain in football, and generally provide 20-30% greater MCL resistance to a lateral blow²²
- Reduces injury rates among college football players, linemen, linebackers and tight ends when worn in both practices and games vs. unbraced players^{21, 24}
- An internal analysis at a major Division I university football program, the number of days lost due to knee injury (and related associated healthcare costs) was reduced by 99% from year 1 to year 2 through the use of a custom fitted prophylactic knee brace in the 2nd year²⁶

OFF-ROAD MOTORCYCLING

- Reduces ACL injury rates by 50% with a 7-fold decrease in MCL injury rates²³

A BRACE EQUIPPED WITH
4-POINTS-OF-LEVERAGE PLUS
FOURCEPOINT IS A CLINICALLY-
PROVEN COMBINATION TO
PROTECT AND PREVENT
INJURY TO THE ACL.

NON-CONTACT

Reducing the risk of injury

SKIING

- Reduces ACL reinjury by 3-times compared to non-braced²⁵
- Training with FourcePoint™ hinge will encourage the knee to stay out of the "at risk" position (0°-30° of flexion)
- Training effect with FourcePoint hinge will be retained despite intermittent brace wear
- Rehab training after ACL reconstruction without a FourcePoint hinged brace leads to abnormal joint mechanics of both knees
- Rehab training after ACL reconstruction with a FourcePoint hinged brace improves joint mechanics in both knees

Armor FourcePoint™



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Supporting Studies





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