

**PERBANDINGAN KESEIMBANGAN DINAMIK
ANTARA ATLET PUSLATDA JAWA TIMUR DENGAN *FLAT FOOT*
DAN TANPA *FLAT FOOT***

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ABSTRAK

Latar Belakang :

Cidera ekstremitas bawah adalah kasus yang paling sering terjadi pada cedera atlet. Atlet olahraga seringkali mengalami perturbasi yang mengganggu keseimbangan dirinya. Keseimbangan yang buruk berhubungan dengan peningkatan resiko cedera pada atlet. *Flat foot* mempengaruhi biomekanika kaki dan mengganggu distribusi tekanan serta keseimbangan selama berjalan dan berlari.

Tujuan : Untuk membandingkan keseimbangan dinamik antara atlet Puslatda Jawa Timur dengan *flat foot* dan tanpa *flat foot*.

Metode : Sebanyak 104 atlet Puslatda Jawa Timur, usia 16-32 tahun, 52 atlet laki-laki dan 52 atlet perempuan telah dilakukan pemeriksaan keseimbangan dinamik dengan *Star Excursion Balance Test (SEBT)* dan pemeriksaan *flat foot* dengan *Chippaux-Smirak Index*.

Hasil : Tidak terdapat perbedaan nilai *normalized SEBT* antara kelompok atlet dengan *flat foot* dan kelompok atlet tanpa *flat foot*, dengan *p value* untuk arah anterior = 0,627, anterolateral = 0,587, lateral = 0,341, posterolateral = 0,91, posterior = 0,964, posteromedial = 0,977, medial = 0,94, dan anteromedial = 0,515.

Kesimpulan : Tidak terdapat perbedaan keseimbangan dinamik antara atlet Puslatda Jawa Timur dengan *flat foot* dan tanpa *flat foot*. Perlu dilakukan penelitian lebih lanjut untuk mengetahui keseimbangan dinamik tiap cabang olah raga dan pengaruh latihan spesifik tiap cabang olahraga terhadap keseimbangan dinamik.

Kata kunci: Keseimbangan dinamik, *flat foot*, atlet

COMPARISON OF DYNAMIC BALANCE BETWEEN ATHLETES WITH FLAT FOOT AND WITHOUT FLAT FOOT

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ABSTRACT

Background : Lower extremity injuries are one of the most common cases of sports' injury. Sports athletes often experienced perturbations that disturb their balance. Poor balance is associated with an increased risk of injury in athletes. Flat foot affects the biomechanics of the foot and impairs pressure distribution and balance during walking and running

Objective : To compare the dynamic balance between athletes with flat foot and without flat foot.

Method : A cross-sectional study of 104 athletes, aged between 16-32 years, 52 male athletes and 52 female athletes were conducted to collect data of dynamic balance and flat foot. Dynamic balances were assessed using Star Excursion Balance Test (SEBT) and flat foot were assessed using Chippaux-Smirak Index. Result of SEBT were compared between athletes with flat foot and without flat foot. P-value < 0.05 are considered significant.

Result : There was no significant difference in the normalized SEBT value between the athletes with flat foot and the athletes without flat foot, on anterior ($p = 0.627$), anterolateral ($p = 0.587$), lateral ($p = 0.341$), posterolateral ($p = 0.91$), posterior ($p = 0.964$), posteromedial ($p = 0.977$), medial ($p = 0.94$), and anteromedial direction ($p = 0.515$).

Conclusion : There is no difference in the dynamic balance between athletes with flat foot and without flat foot. Further research is needed to determine the dynamic balance of each sport and the effect of specific training for each sport on dynamic balance.

Keywords : Dynamic balance, *flat foot*, athlete