Supplementary material

Supplementary Table 1. Kinematic variables (T1–T4) Shapiro-Wilk normality test results.

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| Variable | Group | W Statistic | *p*-value |
| Right foot contact angle (T1) | | | |
|  | OH | 0.968 | 0.828 |
| OPP | 0.927 | 0.579 |
| Ground contact angle (T1) | | | |
|  | OH | 0.975 | 0.870 |
| OPP | 0.975 | 0.875 |
| Center of mass projection-support distance (T1) | | | |
|  | OH | 0.960 | 0.778 |
| OPP | 0.980 | 0.900 |
| Step-close foot angle (T2) | | | |
|  | OH | 0.984 | 0.926 |
| OPP | 0.726 | 0.022 |
| Right foot orientation angle (T2) | | | |
|  | OH | 0.952 | 0.731 |
| OPP | 0.804 | 0.110 |
| Acromion-acromion angle (T2) | | | |
|  | OH | 0.918 | 0.524 |
| OPP | 0.874 | 0.314 |
| Left knee flexion angle (T2) | | | |
|  | OH | 0.964 | 0.802 |
| OPP | 0.815 | 0.132 |
| Right knee flexion angle (T2) | | | |
|  | OH | 0.882 | 0.347 |
| OPP | 0.863 | 0.273 |
| Left foot-center of mass distance (T2) | | | |
|  | OH | 0.972 | 0.852 |
| OPP | 0.972 | 0.856 |
| Right foot-CoM distance (T2) | | | |
|  | OH | 0.874 | 0.313 |
| OPP | 0.894 | 0.400 |
| Inter-foot distance (T2) | | | |
|  | OH | 0.975 | 0.870 |
| OPP | 0.896 | 0.410 |
| Left knee flexion angle (T3) | | | |
|  | OH | 0.924 | 0.561 |
| OPP | 0.987 | 0.940 |
| Right knee flexion angle (T3) | | | |
|  | OH | 0.897 | 0.416 |
| OPP | 0.814 | 0.130 |
| Braking phase duration (T3) | | | |
|  | OH | 0.863 | 0.272 |
| OPP | 0.982 | 0.911 |
| Right knee angular velocity (T3) | | | |
|  | OH | 0.983 | 0.918 |
| OPP | 0.918 | 0.525 |
| Take-off angle (T4) | | | |
|  | OH | 0.965 | 0.811 |
| OPP | 0.893 | 0.399 |
| Propulsion phase duration (T4) | | | |
|  | OH | 0.630 | 0.001 |
| OPP | 0.954 | 0.683 |

The Shapiro-Wilk test was used to assess the normality of all key variables for both the Outside Hitter (OH) and Opposite Hitter (OPP) groups. The results are presented below. A *p*-value > 0.05 indicates no significant deviation from normality.