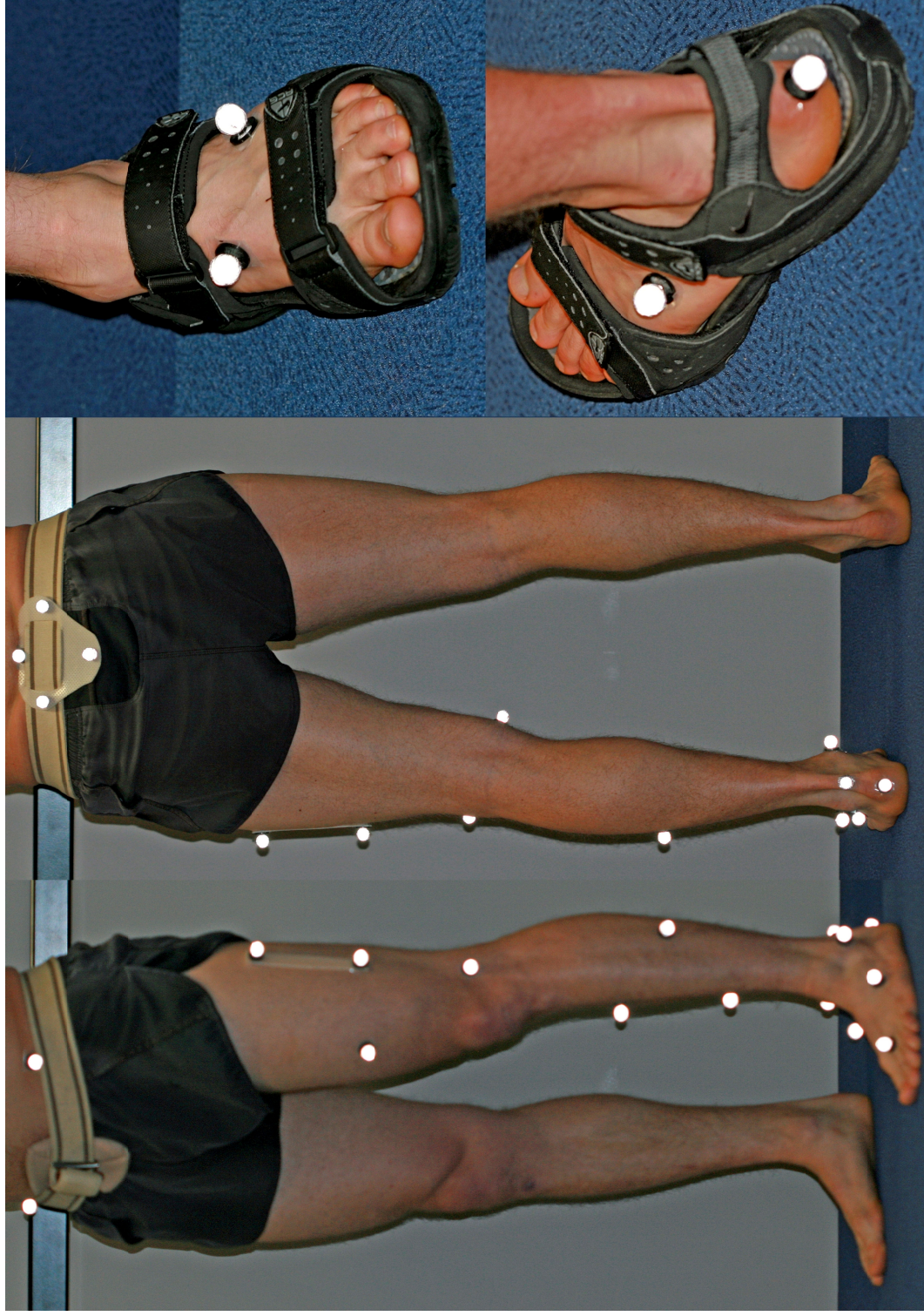


Supplemental Digital Content 1 Marker set up for experimental data collection. The left panel and middle panel illustrate the locations of all the markers. Note that the 'calibration' markers (affixed to the left and right anterior superior iliac spines, medial and lateral femoral condyles, medial and lateral malleoli, the superoposterior aspect of the heel, and on the forefoot at the junction between 2nd and 3rd metatarsophalangeal joints) were removed after the static trial. The right panels illustrate the running sandals and the markers used to track dynamic motion of the foot segment in situ.



Supplemental Digital Content 2 Ten distinct periods of continuous positive or negative work done (area under the net power curve) at the lower-limb joints were identified across the stride cycle for all running speeds. For the hip, these periods included the negative work done during terminal stance (H1), the positive work done during initial swing (H2), the negative work done during mid-swing (H3), and the positive work done during terminal swing (H4). For the knee, these periods included the negative work done during initial stance (K1), the positive work done during terminal stance (K2), the negative work done during initial swing (K3), and the positive work done during terminal swing (K4). For the ankle, these periods included the negative work done during initial stance (A1) and the positive work done during terminal stance (A2).

