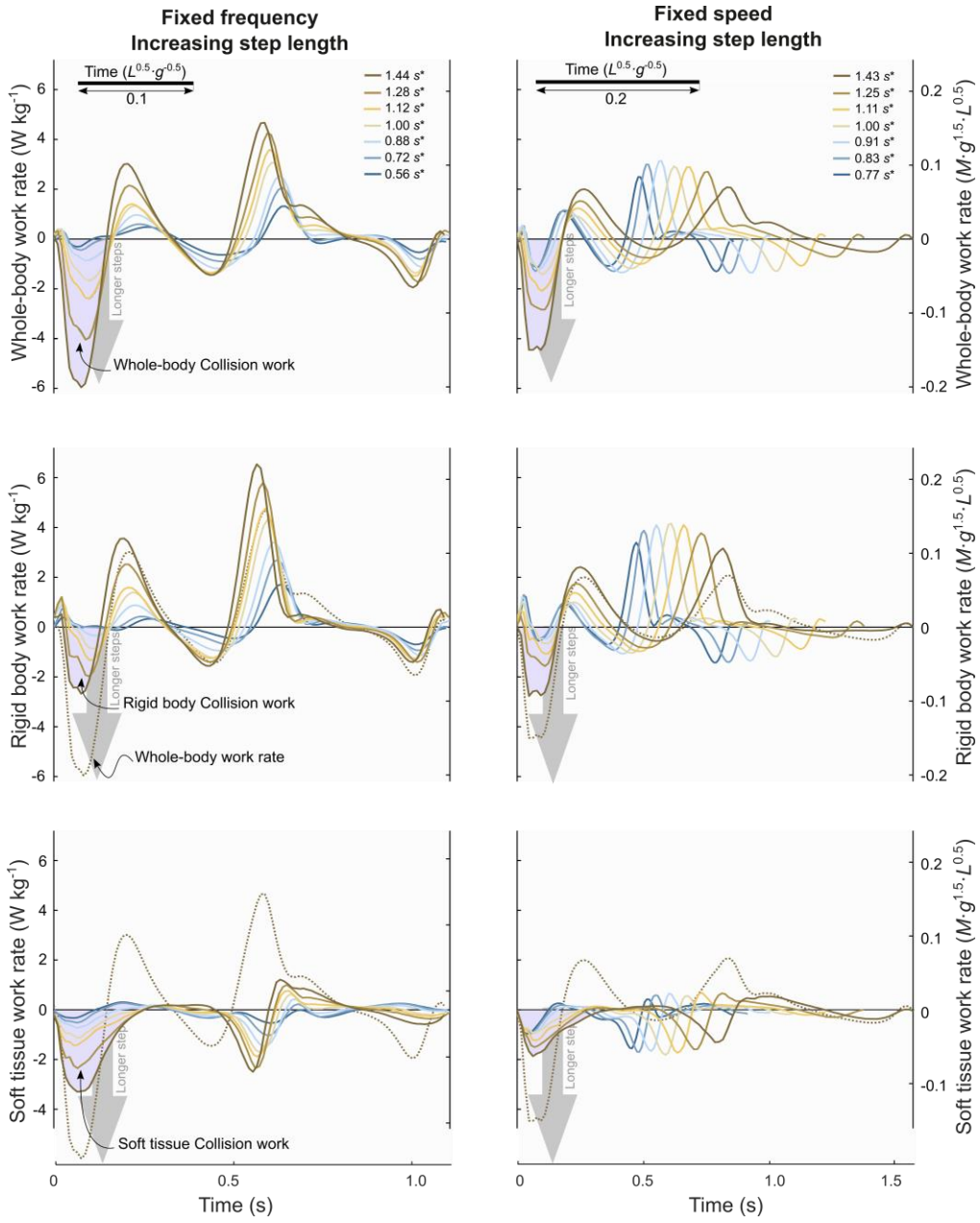

Fig. S1. Work rates for walking with (left:) Fixed step frequency and (right:) Fixed speed, both with increasing step length. (top to bottom:) Whole-body, rigid body, and soft tissue work rates vs. time for one stride. Whole-body work rate is the sum of COM and peripheral work rates. Rigid body work is the sum of joint work rates from inverse dynamics. Soft tissue work rate is the difference between whole-body and rigid body rates. Plots share the same pair of vertical axes, with dimensional units on the left, and normalized units on the right (base units body mass M, leg length L and gravitational constant g); time (horizontal bar, top panel) in normalized units of $\sqrt{L/g}$. All lines indicate means across subjects (N = 9).

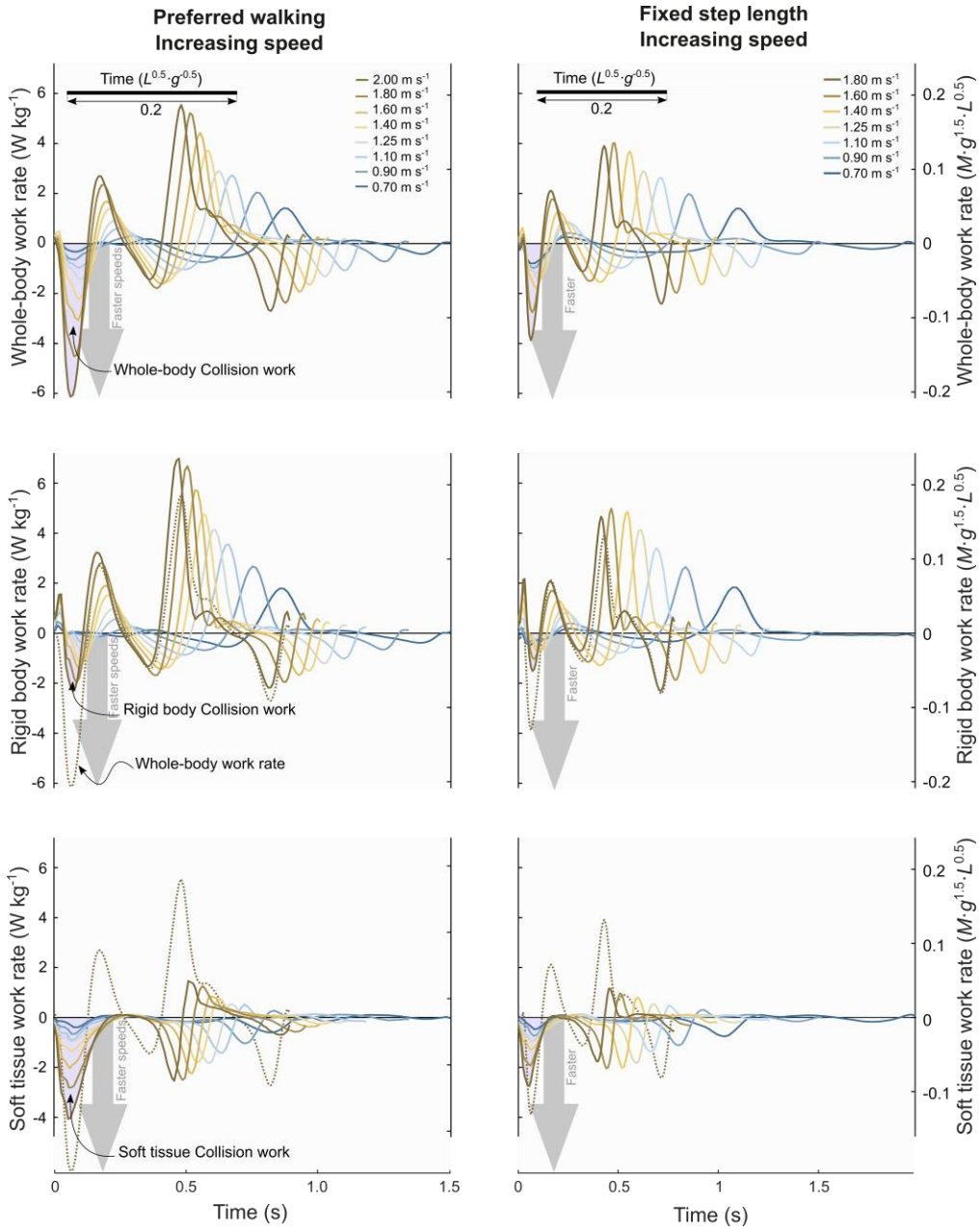

Fig. S2. Work rates for walking at increasing speed with (left:) Preferred and (right:) fixed step length. (top to bottom:) Whole-body, rigid body, and soft tissue work rates vs. time for one stride. Whole-body work rate is the sum of COM and peripheral work rates. Rigid body work is the sum of joint work rates from inverse dynamics. Soft tissue work rate is the difference between whole-body and rigid body rates. Plots share the same pair of vertical axes, with dimensional units on the left, and normalized units on the right (base units body mass M, leg length L and gravitational constant g); time (horizontal bar, top panel) in normalized units of $\sqrt{L/g}$. All lines indicate means across subjects (N = 9).