**Supplemental Table 2.** Analyses of asymmetry. Significance levels (P values; bold indicates P < 0.05 or P < 0.1 for interaction terms) are from two-way nested analysis of variance models implemented in SAS PROC MIXED. Signs after P values indicate direction of effect: + indicates HR > C, Male > Female, or Mini-muscle > normal muscle.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Trait** | **N** | **Linetype** | **Sex** | **Sex\*Linetype** | **Mini-Muscle** |
| ***Degrees of Freedom*** |  | **1, 6** | 1, 6 | 1, 6 | 1, ~19 |
|  |  |  |  |  |  |
| **DA Leg** | 134 | **0.0217-** | 0.4412+ | 0.3885 | 0.2340- |
| **DA Femur L** | 137 | **0.0311-** | 0.9000- | 0.1286 | 0.4762- |
| **DA Tibia-fibula L** | 137 | 0.8981+ | 0.8958+ | 0.6055 | 0.4298- |
| **DA 3rd Metatarsal** | 135 | 0.1398+ | **0.0361-** | 0.2592 | 0.7564+ |
| **DA Femoral Head** | 137 | 0.6190- | 0.1875+ | 0.6215 | 0.8323- |
| **DA Femoral Least Width** | 139 | 0.8551- | **0.0454-** | **0.0567** | 0.8748- |
| **DA Femoral Distal Width** | 135 | 0.1530- | 0.7582+ | 0.5918 | 0.9447- |
| **DA Tibia-fibula Least Width** | 136 | 0.4843- | 0.6799- | **0.0923** | 0.4814+ |
| **DA Tibia-fibula Distal Width** | 136 | 0.6963- | 0.5590+ | 0.6426 | **0.0236+** |
|  |  |  |  |  |  |
| **FA Leg** | 134 | 0.0865- | 0.2770- | 0.7845 | 0.2586+ |
| **FA Femur L** | 138 | 0.0993- | 0.2472- | 0.9080 | 0.2131+ |
| **FA Tibia-fibula L** | 139 | 0.2538- | 0.8835- | 0.8816 | 0.8535+ |
| **FA 3rd Metatarsal** | 135 | 0.7827- | 0.0806+ | 0.1785 | 0.4161- |
| **FA Femoral Head** | 138 | 0.8409+ | 0.7462+ | 0.7363 | 0.1165+ |
| **FA Femoral Least Width** | 139 | 0.9712+ | 0.2062+ | 0.3773 | 0.4716+ |
| **FA Femoral Distal Width** | 135 | 0.3993- | 0.6279+ | 0.9473 | 0.7901- |
| **FA Tibia-fibula Least Width** | 136 | 0.3849+ | 0.2557+ | 0.1546 | 0.1934- |
| **FA Tibia-fibula Distal Width** | 136 | **0.0108-** | 0.8846- | 0.8235 | 0.0666+ |
|  |  |  |  |  |  |
| **FA/DA Leg** | 133 | 0.1230- | 0.1783+ | 0.3295 | 0.2375- |
| **FA/DA Femur L** | 135 | 0.0510**-** | 0.4426+ | 0.2369 | 0.3549- |
| **FA/DA Tibia-fibula L** | 133 | 0.5766- | 0.2693- | 0.5146 | 0.7018- |
| **FA/DA 3rd Metatarsal** | 127 | 0.6255+ | 0.1990- | 0.4861 | 0.4614+ |
| **FA/DA Femoral Head** | 128 | 0.6587- | 0.1250+ | 0.5736 | 0.8764- |
| **FA/DA Femoral Least Width** | 132 | 0.7714- | 0.0743- | **0.0997** | 0.9553+ |
| **FA/DA Femoral Distal Width** | 135 | 0.6163- | 0.2418- | 0.9592 | 0.2141- |
| **FA/DA Tibia-fibula Least Width** | 133 | 0.2623- | 0.9409- | **0.0649** | 0.3467+ |
| **FA/DA Tibia-fibula Distal Width** | 126 | 0.9550+ | 0.5792+ | 0.7144 | 0.3473+ |