

Generalized Additive Models adjusted for body measures

Supplementary Table 8. GAMs for Hadza ENMO, adjusted for height (cm), weight (kg) and body mass index (BMI).

Formula: enmo ~ s(age) + sex + htcm

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) 134.3024   46.0606   2.916  0.00534 **
sexm         -0.4492    5.4381  -0.083  0.93451
htcm         -0.5639    0.3080  -1.831  0.07317 .
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age)  1  1.001  5.182  0.0271 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.142  Deviance explained = 19.1%
-REML = 212.25  Scale est. = 233.1      n = 53
    
```

Formula: enmo ~ s(age) + sex + wtkg

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  75.2015   12.9036   5.828  4.3e-07 ***
sexm         -3.9439    4.4179  -0.893  0.3764
wtkg         -0.5619    0.2810  -2.000  0.0511 .
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age)  1  1.001  4.469  0.0395 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.152  Deviance explained = 20.1%
-REML = 212.03  Scale est. = 230.26      n = 53
    
```

Formula: enmo ~ s(age) + sex + bmi

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  78.0346   18.5843   4.199  0.000113 ***
sexm         -7.7785    4.3141  -1.803  0.077534 .
bmi          -1.3993    0.9193  -1.522  0.134397
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age)  1  1.001  4.017  0.0505 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.125  Deviance explained = 17.5%
-REML = 211.66  Scale est. = 237.81      n = 53
    
```

Generalized Additive Models adjusted for body measures

Supplementary Table 9. GAMs for Hadza MVPA, adjusted for height (cm), weight (kg) and body mass index (BMI).

Formula: mvpa ~ sex + s(age) + htcm

Parametric coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	533.297	285.326	1.869	0.0681 .
sexm	8.984	33.663	0.267	0.7908
htcm	-2.059	1.906	-1.080	0.2858

Approximate significance of smooth terms:

	edf	Ref.df	F	p-value
s(age)	1	1.001	6.509	0.0141 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.102 Deviance explained = 15.8%
 -REML = 275.74 Scale est. = 8243.6 n = 49

Formula: mvpa ~ sex + s(age) + wtkg

Parametric coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	280.122	80.808	3.467	0.00117 **
sexm	-7.252	28.031	-0.259	0.79705
wtkg	-1.235	1.782	-0.693	0.49179

Approximate significance of smooth terms:

	edf	Ref.df	F	p-value
s(age)	1	1	6.112	0.0172 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.0886 Deviance explained = 14.6%
 -REML = 276.15 Scale est. = 8368 n = 49

Formula: mvpa ~ sex + s(age) + bmi

Parametric coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	265.914	117.017	2.272	0.0279 *
sexm	-15.089	26.583	-0.568	0.5731
bmi	-2.045	5.876	-0.348	0.7295

Approximate significance of smooth terms:

	edf	Ref.df	F	p-value
s(age)	1	1	6.094	0.0173 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.0813 Deviance explained = 13.9%
 -REML = 275.14 Scale est. = 8434.7 n = 49

Generalized Additive Models adjusted for body measures

Supplementary Table 10. GAMs for Hadza walk test, adjusted for height (cm), weight (kg) and body mass index (BMI).

Formula: walk test - sex + s(age) + htcm

Parametric coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	121.9626	124.9140	0.976	0.337
sexm	11.2326	13.3563	0.841	0.408
htcm	0.2423	0.8315	0.291	0.773

Approximate significance of smooth terms:

	edf	Ref.df	F	p-value
s(age)	1.316	1.575	1.011	0.472

R-sq.(adj) = 0.0326 Deviance explained = 13.6%
 -REML = 137.8 Scale est. = 619.06 n = 32

Formula: walk test - sex + s(age) + wtkg

Parametric coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	175.1334	32.5356	5.383	9.75e-06 ***
sexm	17.8096	10.4554	1.703	0.0996 .
wtkg	-0.3998	0.7370	-0.542	0.5918

 Approximate significance of smooth terms:

	edf	Ref.df	F	p-value
s(age)	1	1.001	1.54	0.225

R-sq.(adj) = 0.0275 Deviance explained = 12.2%
 -REML = 137.81 Scale est. = 622.37 n = 32

Formula: walk test - sex + s(age) + bmi

Parametric coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	199.016	42.300	4.705	6.22e-05 ***
sexm	15.224	8.873	1.716	0.0973 .
bmi	-2.154	2.186	-0.985	0.3331

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Approximate significance of smooth terms:

	edf	Ref.df	F	p-value
s(age)	1.002	1.003	1.711	0.202

R-sq.(adj) = 0.0502 Deviance explained = 14.2%
 -REML = 136.38 Scale est. = 607.82 n = 32

Generalized Additive Models adjusted for body measures

Supplementary Table 11. GAMs for Hadza grip strength, adjusted for height (cm), weight (kg) and body mass index (BMI).

Formula: grip strength ~ sex + s(age, by = sex) + htcm

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) -48.95418    5.71006  -8.573 4.86e-14 ***
sexm         3.17403     0.92248   3.441 0.000805 ***
htcm         0.47561     0.03819  12.455 < 2e-16 ***
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age):sexf 1.001  1.001 11.858 0.000791 ***
s(age):sexm 3.169  4.008  7.098 3.56e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.735  Deviance explained = 74.8%
-REML = 373.22  Scale est. = 24.011  n = 124

```

Formula: grip strength ~ sex + s(age, by = sex) + wtkg

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) -4.29248    2.38295  -1.801 0.074220 .
sexm         3.59915     0.98232   3.664 0.000374 ***
wtkg         0.60573     0.05281  11.471 < 2e-16 ***
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age):sexf 1.00  1.001 9.595 0.002428 **
s(age):sexm 2.72  3.456 6.749 0.000161 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.697  Deviance explained = 71.1%
-REML = 380.44  Scale est. = 27.485  n = 124

```

Formula: grip strength ~ sex + s(age, by = sex) + bmi

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) 13.9692    4.9649   2.814 0.00579 **
sexm         4.9382     1.1149   4.429 2.22e-05 ***
bmi          0.3989     0.2585   1.543 0.12570
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age):sexf 4.454  5.371  5.99 4.00e-05 ***
s(age):sexm 5.048  6.136 11.49 1.48e-10 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.615  Deviance explained = 65.1%
-REML = 400.95  Scale est. = 34.868  n = 124

```

Generalized Additive Models adjusted for body measures

Supplementary Table 12. GAMs for Pokot ENMO, adjusted for height (cm), weight (kg) and body mass index (BMI).

Formula: enmo ~ sex + s(age) + htcm

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) -13.0895   42.1887  -0.310   0.758
sexm         6.0527    4.2491   1.424   0.163
htcm         0.3021    0.2640   1.144   0.260
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age)  1      1 11.29 0.00185 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.299  Deviance explained = 35.4%
-REML = 140.54  Scale est. = 110.88    n = 39

```

Formula: enmo ~ sex + s(age) + wtkg

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  27.8362   15.5551   1.790  0.0822 .
sexm         7.9469    4.0710   1.952  0.0590 .
wtkg         0.1535    0.3242   0.473  0.6388
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age)  1      1 10.17 0.00295 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.277  Deviance explained = 33.4%
-REML = 140.88  Scale est. = 114.3    n = 39

```

Formula: enmo ~ sex + s(age) + bmi

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  43.7649   20.3168   2.154  0.0382 *
sexm         9.0876    3.4655   2.622  0.0128 *
bmi        -0.4663    1.0843  -0.430  0.6698
---
Approximate significance of smooth terms:
      edf Ref.df      F p-value
s(age)  1      1 8.171 0.00704 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.276  Deviance explained = 33.3%
-REML = 139.69  Scale est. = 114.43    n = 39

```

Generalized Additive Models adjusted for body measures

Supplementary Table 13. GAMs for Pokot MVPA, adjusted for height (cm), weight (kg) and body mass index (BMI).

Formula: mvpa ~ sex + s(age) + htcm

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) 287.4159   206.8727   1.389   0.176
sexm         35.8317    22.1553   1.617   0.117
htcm        -0.7189     1.2996  -0.553   0.585
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age) 1.101  1.193 24.06 2.18e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.493  Deviance explained = 54.5%
-REML = 149.44  Scale est. = 2074.8    n = 31

```

Formula: mvpa ~ sex + s(age) + wtkg

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) 123.142    71.646   1.719 0.0971 .
sexm         20.140    20.252   0.994 0.3288
wtkg         1.065     1.493   0.714 0.4816
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age) 1.001  1.001 27.88 9.92e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.494  Deviance explained = 54.5%
-REML = 149.2  Scale est. = 2066.9    n = 31

```

Formula: mvpa ~ sex + s(age) + bmi

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  27.274    94.989   0.287 0.776
sexm         25.903    16.556   1.564 0.129
bmi          7.840     5.049   1.553 0.132
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age)  1      1 33.41 2.08e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.527  Deviance explained = 57.4%
-REML = 147.04  Scale est. = 1933.3    n = 31

```

Generalized Additive Models adjusted for body measures

Supplementary Table 14. GAMs for Pokot walk test, adjusted for height (cm), weight (kg) and body mass index (BMI).

Formula: walk test ~ sex + s(age) + htcm

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) 104.2904   96.9873   1.075   0.289
sexm         14.5801   10.2666   1.420   0.163
htcm         0.0410    0.6128   0.067   0.947
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age) 1.945  2.404 3.841 0.0303 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.183  Deviance explained = 25.6%
-REML = 200.21  Scale est. = 643.81    n = 45

```

Formula: walk test ~ sex + s(age) + wtkg

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) 101.6220   36.0943   2.815 0.00752 **
sexm         13.6677    9.2614   1.476 0.14782
wtkg         0.1943    0.7572   0.257 0.79883
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age) 1.926  2.379 3.723 0.0359 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.183  Deviance explained = 25.6%
-REML = 199.97  Scale est. = 643.6      n = 45

```

Formula: walk test ~ sex + s(age) + bmi

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept)  98.7278   45.1820   2.185 0.0348 *
sexm         15.0589    7.6218   1.976 0.0551 .
bmi          0.6374    2.3754   0.268 0.7898
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age) 1.961  2.422 3.543 0.0397 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.185  Deviance explained = 25.8%
-REML = 198.82  Scale est. = 642.56    n = 45

```

Generalized Additive Models adjusted for body measures

Supplementary Table 15. GAMs for Pokot grip strength, adjusted for height (cm), weight (kg) and body mass index (BMI).

Formula: grip strength ~ sex + s(age, by = sex) + htcm

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) -26.2132   29.0411  -0.903  0.37245
sexm         9.6801    2.8434   3.404  0.00159 **
htcm         0.3076    0.1833   1.678  0.10170
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age):sexf 1.000  1.00 0.00 0.988443
s(age):sexm 3.287  4.04 6.87 0.000249 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.626  Deviance explained = 67.9%
-REML = 144.29  Scale est. = 42.825  n = 45

```

Formula: grip strength ~ sex + s(age, by = sex) + wtkg

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) 21.79183   10.28059   2.120  0.0407 *
sexm        13.01774    2.55843   5.088 1.02e-05 ***
wtkg         0.01396    0.21550   0.065  0.9487
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age):sexf 1.001  1.002 0.294 0.591358
s(age):sexm 3.188  3.923 5.721 0.000973 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.596  Deviance explained = 65.3%
-REML = 145.51  Scale est. = 46.195  n = 45

```

Formula: grip strength ~ sex + s(age, by = sex) + bmi

```

Parametric coefficients:
      Estimate Std. Error t value Pr(>|t|)
(Intercept) 37.0687   12.0632   3.073  0.00392 **
sexm        13.1457    2.0378   6.451  1.4e-07 ***
bmi         -0.7742    0.6346  -1.220  0.23005
---
Approximate significance of smooth terms:
      edf Ref.df    F p-value
s(age):sexf 1.000  1.00 0.000 0.999370
s(age):sexm 3.148  3.87 6.265 0.000673 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

R-sq.(adj) = 0.609  Deviance explained = 66.4%
-REML = 143.69  Scale est. = 44.679  n = 45

```