

Table S1. Multiple linear regression analysis of factors associated with masticatory performance

| | | Univariate | | | | Multivariate | | | | | |
|-------|------------|------------|--------|-------------------|-------|----------------|--------|--------|------------------|--------|----------------|
| | | B | β | 95% CI | p | R ² | B | β | 95% CI | p | R ² |
| 20-45 | Age | 1.715 | 0.229 | -0.381 - 3.811 | 0.107 | 0.052 | | | | | |
| | Gender (M) | 1 | | ref | | | | | | | |
| | Gender (F) | -4.038 | -0.037 | -35.775 - 27.698 | 0.799 | 0.001 | | | | | |
| | RT | -6.073 | -0.172 | -16.034 - 3.889 | 0.226 | 0.030 | | | | | |
| | FTUs | -6.313 | -0.091 | -26.163 - 13.537 | 0.526 | 0.008 | | | | | |
| | TP | -0.958 | -0.187 | -2.400 - 0.483 | 0.188 | 0.035 | | | | | |
| | HG | 0.575 | 0.108 | -0.944 - 2.094 | 0.451 | 0.012 | | | | | |
| | PBA | 1.297 | 0.299 | 0.108 - 2.485 | 0.033 | 0.089 | 1.164 | 0.268 | 0.032 - 2.296 | 0.044* | 0.198 |
| | ABA | -0.765 | -0.033 | -7.496 - 5.967 | 0.820 | 0.001 | | | | | |
| | BF | 0.033 | 0.261 | -0.002 - 0.068 | 0.064 | 0.068 | | | | | |
| | MTM | 3.639 | 0.174 | -2.275 - 9.554 | 0.222 | 0.030 | | | | | |
| | FIA | 2.450 | 0.128 | -2.983 - 7.884 | 0.369 | 0.016 | | | | | |
| | OHIP-14 | -3.144 | -0.356 | -5.512 - -0.777 | 0.010 | 0.127 | -2.926 | -0.332 | -5.229 - -0.623 | 0.014* | |
| | Tooth wear | 44.296 | 0.155 | -36.497 - 125.089 | 0.276 | 0.024 | | | | | |
| 45-60 | Age | 0.235 | 0.014 | -4.328 - 4.797 | 0.918 | 0.000 | | | | | |
| | Gender (M) | 1 | | ref | | | | | | | |
| | Gender (F) | -26.904 | -0.198 | -63.879 - 10.071 | 0.150 | 0.039 | | | | | |
| | RT | 19.478 | 0.301 | 2.311 - 36.645 | 0.027 | 0.091 | -1.848 | -0.043 | -15.495 - 11.800 | 0.790 | 0.106 |
| | FTUs | 26.444 | 0.284 | 1.563 - 51.326 | 0.038 | 0.080 | 1.015 | 0.018 | -16.639 - 18.669 | 0.910 | |
| | TP | 2.303 | 0.354 | 0.608 - 3.997 | 0.009 | 0.125 | -0.170 | -0.032 | -0.943 - 0.603 | 0.664 | |
| | HG | 1.346 | 0.171 | -0.806 - 3.498 | 0.215 | 0.029 | | | | | |
| | PBA | 2.316 | 0.412 | 0.891 - 3.741 | 0.002 | 0.170 | 1.146 | 0.219 | -0.308 - 2.599 | 0.122 | |
| | ABA | -2.037 | -0.176 | -5.215 - 1.142 | 0.204 | 0.031 | | | | | |
| | BF | 0.066 | 0.420 | 0.026 - 0.106 | 0.002 | 0.176 | 0.012 | 0.087 | -0.026 - 0.051 | 0.527 | |
| | MTM | 8.014 | 0.311 | 1.193 - 14.835 | 0.022 | 0.097 | 0.425 | 0.018 | -3.724 - 4.574 | 0.840 | |
| | FIA | 3.212 | 0.230 | -0.572 - 6.995 | 0.094 | 0.053 | | | | | |
| | OHIP-14 | -0.254 | -0.030 | -2.571 - 2.063 | 0.827 | 0.001 | | | | | |
| | Tooth wear | 23.826 | 0.125 | -28.819 - 76.471 | 0.368 | 0.016 | | | | | |
| 61-70 | Age | -1.938 | -0.103 | -7.712 - 3.836 | 0.502 | 0.011 | | | | | |
| | Gender (M) | 1 | | ref | | | | | | | |
| | Gender (F) | -8.696 | -0.082 | -41.278 - 23.885 | 0.593 | 0.007 | | | | | |
| | RT | 8.009 | 0.169 | -6.326 - 22.344 | 0.266 | 0.029 | | | | | |
| | FTUs | 9.537 | 0.194 | -5.283 - 24.357 | 0.201 | 0.038 | | | | | |
| | TP | 0.261 | 0.038 | -1.845 - 2.368 | 0.804 | 0.001 | | | | | |
| | HG | 0.205 | 0.036 | -1.569 - 1.979 | 0.817 | 0.001 | | | | | |
| | PBA | 1.547 | 0.301 | 0.042 - 3.053 | 0.044 | 0.091 | 1.547 | 0.301 | 0.042 - 3.053 | 0.044* | 0.091 |
| | ABA | -0.720 | -0.233 | -1.644 - 0.204 | 0.124 | 0.054 | | | | | |
| | BF | 0.034 | 0.268 | -0.004 - 0.073 | 0.076 | 0.072 | | | | | |
| | MTM | 1.463 | 0.059 | -6.093 - 9.018 | 0.698 | 0.004 | | | | | |
| | FIA | 1.683 | 0.188 | -1.023 - 4.389 | 0.217 | 0.035 | | | | | |
| | OHIP-14 | -0.999 | -0.139 | -3.185 - 1.187 | 0.362 | 0.019 | | | | | |
| | Tooth wear | -28.722 | -0.265 | -60.820 - 3.375 | 0.078 | 0.070 | | | | | |
| 71+ | Age | 0.385 | 0.034 | -2.523 - 3.294 | 0.792 | 0.001 | | | | | |
| | Gender (M) | 1 | | ref | | | | | | | |
| | Gender (F) | -16.427 | -0.138 | -47.165 - 14.311 | 0.289 | 0.019 | | | | | |
| | RT | 2.717 | 0.068 | -7.721 - 13.156 | 0.604 | 0.005 | | | | | |
| | FTUs | -0.099 | -0.002 | -12.260 - 12.061 | 0.987 | 0.000 | | | | | |
| | TP | 0.234 | 0.039 | -1.322 - 1.790 | 0.764 | 0.002 | | | | | |

| | | | | | |
|------------|--------|--------|------------------|-------|-------|
| HG | 0.613 | 0.085 | -1.270 - 2.495 | 0.517 | 0.007 |
| PBA | 1.477 | 0.203 | -0.375 - 3.329 | 0.116 | 0.041 |
| ABA | 1.659 | 0.106 | -2.396 - 5.714 | 0.416 | 0.011 |
| BF | 0.030 | 0.161 | -0.018 - 0.079 | 0.217 | 0.026 |
| MTM | 3.097 | 0.138 | -2.677 - 8.872 | 0.288 | 0.019 |
| FIA | 1.235 | 0.136 | -1.112 - 3.582 | 0.297 | 0.018 |
| OHIP-14 | -1.113 | -0.117 | -3.571 - 1.346 | 0.369 | 0.014 |
| Tooth wear | 13.457 | 0.103 | -20.555 - 47.469 | 0.432 | 0.011 |

B: partial regression coefficient; β : standardized partial regression coefficient; * $p < 0.05$
RT: number of remaining teeth, FTUs: functional tooth units, MP: masticatory performance, HG: handgrip strength, PBA: posterior bite area, ABA: anterior bite area, BF: bite force, MMT: masseter muscle thickness

Table S2. Multiple linear regression analysis of factors associated with food intake ability

| | | Univariate | | | | | Multivariate | | | | |
|-------|------------|------------|--------|-----------------|-------|----------------|--------------|--------|-----------------|--------|----------------|
| | | B | β | 95% CI | p | R ² | B | β | 95% CI | p | R ² |
| 20-45 | Age | 0.029 | 0.073 | -0.084 - 0.141 | 0.609 | 0.005 | | | | | |
| | Gender (M) | 1 | | ref | | | | | | | |
| | Gender (F) | -1.323 | -0.228 | -2.943 - 0.297 | 0.107 | 0.052 | | | | | |
| | RT | -0.178 | -0.097 | -0.706 - 0.349 | 0.500 | 0.009 | | | | | |
| | FTUs | -0.395 | -0.108 | -1.433 - 0.644 | 0.449 | 0.012 | | | | | |
| | TP | 0.018 | 0.068 | -0.058 - 0.095 | 0.634 | 0.005 | | | | | |
| | HG | 0.091 | 0.327 | 0.016 - 0.167 | 0.019 | 0.107 | 0.057 | 0.203 | -0.043 - 0.156 | 0.257 | 0.329 |
| | PBA | 0.044 | 0.194 | -0.020 - 0.108 | 0.172 | 0.038 | | | | | |
| | ABA | 0.188 | 0.153 | -0.161 - 0.536 | 0.285 | 0.023 | | | | | |
| | BF | 0.002 | 0.229 | 0.000 - 0.003 | 0.106 | 0.053 | | | | | |
| | MTM | 0.319 | 0.291 | 0.017 - 0.620 | 0.039 | 0.084 | 0.198 | 0.180 | -0.194 - 0.589 | 0.315 | |
| | MP | 0.007 | 0.128 | -0.008 - 0.022 | 0.369 | 0.016 | | | | | |
| | OHIP-14 | -0.208 | -0.449 | -0.326 - -0.089 | 0.001 | 0.201 | -0.216 | -0.468 | -0.328 - -0.104 | <.001* | |
| | Tooth wear | -1.796 | -0.120 | -6.050 - 2.458 | 0.400 | 0.014 | | | | | |
| 45-60 | Age | -0.148 | -0.126 | -0.472 - 0.176 | 0.365 | 0.016 | | | | | |
| | Gender (M) | 1 | | ref | | | | | | | |
| | Gender (F) | -0.223 | -0.023 | -2.922 - 2.477 | 0.869 | 0.001 | | | | | |
| | RT | 1.241 | 0.268 | 0.000 - 2.483 | 0.050 | 0.072 | | | | | |
| | FTUs | 2.982 | 0.447 | 1.321 - 4.644 | 0.001 | 0.200 | 4.378 | 0.656 | 1.758 - 6.997 | 0.002* | 0.447 |
| | TP | 0.115 | 0.248 | -0.010 - 0.241 | 0.071 | 0.061 | | | | | |
| | HG | 0.072 | 0.129 | -0.083 - 0.227 | 0.353 | 0.017 | | | | | |
| | PBA | 0.101 | 0.251 | -0.007 - 0.209 | 0.067 | 0.063 | | | | | |
| | ABA | 0.144 | 0.174 | -0.083 - 0.372 | 0.209 | 0.030 | | | | | |
| | BF | 0.004 | 0.315 | 0.001 - 0.007 | 0.020 | 0.099 | 0.001 | 0.107 | -0.001 - 0.004 | 0.356 | |
| | MTM | 0.042 | 0.023 | -0.471 - 0.556 | 0.870 | 0.001 | | | | | |
| | MP | 0.016 | 0.230 | -0.003 - 0.036 | 0.094 | 0.053 | | | | | |
| | OHIP-14 | -0.252 | -0.422 | -0.402 - -0.101 | 0.001 | 0.178 | -0.262 | -0.440 | -0.394 - -0.130 | <.001* | |
| | Tooth wear | 2.054 | 0.151 | -1.700 - 5.809 | 0.277 | 0.023 | | | | | |
| 61-70 | Age | -0.456 | -0.216 | -1.088 - 0.177 | 0.154 | 0.047 | | | | | |
| | Gender (M) | 1 | | ref | | | | | | | |

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|-----|------------|--------|--------|-----------------|-------|-------|--------|--------|-----------------|--------|-------|
| | Gender (F) | -2.185 | -0.184 | -5.771 - 1.402 | 0.226 | 0.034 | | | | | |
| | RT | 1.049 | 0.199 | -0.542 - 2.641 | 0.191 | 0.040 | | | | | |
| | FTUs | 1.247 | 0.227 | -0.395 - 2.889 | 0.133 | 0.052 | | | | | |
| | TP | 0.347 | 0.454 | 0.138 - 0.557 | 0.002 | 0.206 | 0.168 | 0.220 | 0.002 - 0.335 | 0.047* | 0.691 |
| | HG | 0.239 | 0.370 | 0.054 - 0.423 | 0.012 | 0.137 | 0.027 | 0.041 | -0.150 - 0.203 | 0.761 | |
| | PBA | 0.080 | 0.139 | -0.095 - 0.254 | 0.361 | 0.019 | | | | | |
| | ABA | -0.012 | -0.036 | -0.118 - 0.094 | 0.816 | 0.001 | | | | | |
| | BF | 0.003 | 0.175 | -0.002 - 0.007 | 0.251 | 0.031 | | | | | |
| | MTM | 0.769 | 0.280 | -0.042 - 1.580 | 0.063 | 0.078 | | | | | |
| | MP | 0.021 | 0.188 | -0.013 - 0.055 | 0.217 | 0.035 | | | | | |
| | OHIP-14 | -0.639 | -0.797 | -0.788 - -0.490 | <.001 | 0.635 | -0.573 | -0.715 | -0.732 - -0.414 | <.001* | |
| | Tooth wear | -0.778 | -0.064 | -4.486 - 2.931 | 0.674 | 0.004 | | | | | |
| 71+ | Age | -0.012 | -0.010 | -0.332 - 0.308 | 0.940 | 0.000 | | | | | |
| | Gender (M) | 1 | | ref | | | | | | | |
| | Gender (F) | -4.209 | -0.321 | -7.441 - -0.977 | 0.012 | 0.103 | -3.674 | -0.280 | -7.627 - 0.279 | 0.068 | 0.310 |
| | RT | 0.596 | 0.135 | -0.544 - 1.736 | 0.300 | 0.018 | | | | | |
| | FTUs | 0.907 | 0.177 | -0.409 - 2.223 | 0.173 | 0.031 | | | | | |
| | TP | 0.040 | 0.061 | -0.131 - 0.211 | 0.642 | 0.004 | | | | | |
| | HG | 0.219 | 0.274 | 0.019 - 0.419 | 0.032 | 0.075 | -0.020 | -0.025 | -0.265 - 0.226 | 0.872 | |
| | PBA | 0.182 | 0.228 | -0.021 - 0.384 | 0.078 | 0.052 | | | | | |
| | ABA | 0.218 | 0.126 | -0.227 - 0.663 | 0.332 | 0.016 | | | | | |
| | BF | 0.004 | 0.208 | -0.001 - 0.010 | 0.108 | 0.043 | | | | | |
| | MTM | 0.408 | 0.166 | -0.224 - 1.041 | 0.201 | 0.028 | | | | | |
| | MP | 0.015 | 0.136 | -0.013 - 0.043 | 0.297 | 0.018 | | | | | |
| | OHIP-14 | -0.513 | -0.491 | -0.751 - -0.276 | <.001 | 0.241 | -0.483 | -0.462 | -0.720 - -0.246 | <.001* | |
| | Tooth wear | -1.260 | -0.087 | -5.006 - 2.486 | 0.504 | 0.008 | | | | | |

B: partial regression coefficient; β : standardized partial regression coefficient; * $p < 0.05$

RT: number of remaining teeth, FTUs: functional tooth units, MP: masticatory performance, HG: handgrip strength, PBA: posterior bite area, ABA: anterior bite area, BF: bite force, MMT: masseter muscle thickness