# Standard Table of Body Measurements for Adult Female Misses Figure Type, Sizes 2–20<sup>1</sup>

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#### INTRODUCTION

This body measurement table was developed from body measurements used currently by apparel manufacturers and retail organizations and from anthropometric surveys conducted by the U.S. Army (Gordon, et al., 1988²) and by the U.S. Navy (Mellian, et al., 1990³ and Robinette, 1990⁴). The measurements were derived originally from the PS 42-70 database,<sup>5</sup> which was developed from anthropometric research conducted in 1941 by O'Brien and Shelton.<sup>6</sup> It is important to note that the body measurements herein have been derived from designer experience and market observations and crosschecked with available databases in the attempt to identify current customer characteristics and changing proportions and not from new nationwide anthropometric research.

## 1. Scope

- 1.1 This table lists body measurements of the adult female misses figure type, sizes 2 through 20. Although these are body measurements, they can be used as a baseline in designing apparel for misses figures in this size range when considering such factors as fabric type, desired ease for body movement, styling, and fit.
- 1.2 The values stated in either acceptable SI units or inch-pound units shall be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system must be used independently of the other,

without combining values in any way.

#### 2. Referenced Documents

2.1 ASTM Standards:

D 123 Terminology Relating to Textile Materials<sup>7</sup>

D 5219 Terminology Relating to a Body Dimension for Apparel Sizing<sup>8</sup>

2.2 ISO Standards:9

ISO 3635-1981 Size Designation of Clothes, Definition and Body Measurement Procedures

ISO 8559 Garment Construction and Anthropometric Surveys—Body Dimensions

# <sup>1</sup> This table is under the jurisdiction of ASTM Committee D-13 on Textiles and is the direct responsibility of Subcommittee D13.55 on Body Measurement for Apparel Measurement.

## 3. Terminology

3.1 *Definitions*—For definitions relating to body dimensions, refer to Terminology D 5219. For definitions of other textile terms used in this table, refer to Terminology D 123.

#### 4. Significance and Use

4.1 The use of the body measurement information given in Table 1 will enable manufacturers to develop patterns and garments that are consistent with the current anthopometric characteristics of the population of interest.

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<sup>&</sup>lt;sup>2</sup> Gordon, C., Churchill, T., Clauser, C., Bradtmiller, B., and McConville, J., 1988 Anthropometric Survey of the U.S. Army Natick R& D Center, Technical Report Natick/TR-89/044, 1988.

<sup>&</sup>lt;sup>3</sup> Mellian, S., Ervin, C., and Robinette, K., Sizing Evaluation of Navy Women's Uniforms, Navy Clothing and Textile Research Facility Technical Report No. NCTRF 182, 1990.

<sup>&</sup>lt;sup>4</sup> Robinette, K., Mellian, S., and Ervin, C., Development of Sizing Systems for Navy Women's Uniforms, Navy Clothing and Textile Research Facility Technical Report No. NCTRF 182, 1990.

<sup>&</sup>lt;sup>5</sup> U.S. Department of Commerce, *Voluntary Product Standard: Body Measurements for the Sizing of Women's Patterns and Apparel*, NIST Publication No. PS 42-70, Washington, DC, 1971.

<sup>&</sup>lt;sup>6</sup> O'Brien, R., and Shelton, W. C., Women's Measurements for Garment and Pattern Construction, Miscellaneous Publication No. 454, U.S. Department of Agriculture, 1941.

<sup>&</sup>lt;sup>7</sup> Annual Book of ASTM Standards, Vol 07.01.

<sup>&</sup>lt;sup>8</sup> Annual Book of ASTM Standards, Vol 07.02.

<sup>&</sup>lt;sup>9</sup> Available from American National Standards Institute, 11 West 42nd Street, 13th Floor, New York, NY 10036.



TABLE 1 Standard Table of Body Measurements for Adult Female Misses Figure Type, Sizes 2–20

|   |                                  |                         | Girth M                              | easurements      | in in.   |  |                         |                         |  |                                 |
|---|----------------------------------|-------------------------|--------------------------------------|------------------|--|--|-------------------------|-------------------------|--|---------------------------------|
| Size  | 2                                | 4                       | 6                                    | 8                | 10   | 12   | 14                      | 16                      | 18   | 20                              |
| Bust  | 32                               | 33                      | 34                                   | 35               | 36   | 371/2  | 39                      | 401/2                   | 421/2  | 441/2                           |
| Waist   | 24                               | 25                      | 26                                   | 27               | 28   | 291/2  | 31                      | 321/2                   | 341/2  | 361/2                           |
| High hip  | 311/2                            | 321/2                   | 331/2                                | 341/2            | 351/2  | 37   | 381/2                   | 40                      | 42   | 44                              |
| Hip   | 341/2                            | 35½                     | 361/2                                | 371/2            | 381/2  | 40   | 411/2                   | 43                      | 45   | 47                              |
| Mid-neck  | 13                               | 131/4                   | 131/2                                | 13¾              | 14   | 143/8  | 143/4                   | 151/8                   | 151/8  | 16½                             |
| Neck base   | 131/2                            | 13¾                     | 14                                   | 141/4            | 141/2  | 147/8  | 151/4                   | 15%                     | 161/8  | 165/8                           |
| Armscye   | 141/4                            | 145/8                   | 15                                   | 15%              | 15¾  | 163/8  | 17                      | 175/8                   | 183/8  | 191/8                           |
| Jpper arm   | 10                               | 101/4                   | 10½                                  | 103/4            | 11   | 11%  | 113/4                   | 121/8                   | 123/4  | 13%                             |
| Elbow   | 93/8                             | 91/2                    | 95/8                                 | 93/4             | 97/8   | 101/8  | 10%                     | 105/8                   | 11   | 113/8                           |
| Vrist   | 55/8                             | 53/4                    | 5 <sup>7</sup> / <sub>8</sub>        | 6                | 61/8   | 61/4   | 63/8                    | 61/2                    | 65/8   | 63/4                            |
| Fhigh, max  | 19½<br>18¼                       | 201/4<br>183/4          | 21<br>19¼                            | 21¾<br>19¾       | 22½<br>20¼   | 23½<br>21  | 24½<br>21¾              | 25½<br>22½              | 26¾<br>23½   | 28<br>24½                       |
| Thigh, mid<br>Knee                                  | 13                               | 13%                     | 133/4                                | 19%              | 20 1/4<br>14 1/2                                   | 21<br>15   | 2194<br>15½             | 16                      | 23 <sup>1</sup> / <sub>2</sub><br>16 <sup>1</sup> / <sub>2</sub> | 24 ½<br>17                      |
| Calf  | 13<br>12½                        | 13%                     | 131/4                                | 135/8            | 14 72  | 13<br>14½  | 15 72                   | 151/2                   | 16 /2  | 17<br>16½                       |
| Sall<br>Ankle                                       | 83/8                             | 85/8                    | 13 <i>7</i> 4<br>87/8                | 91/8             | 93/8   | 95/8   | 97/8                    | 101/8                   | 103/8  | 10 1/2                          |
| Vertical trunk                                      | 56                               | 57½                     | 59                                   | 60½              | 62   | 631/2  | 65                      | 661/2                   | 68   | 691/2                           |
| Total crotch  | 25                               | 253/4                   | 26½                                  | 271/4            | 28   | 28 <sup>3</sup> / <sub>4</sub>                               | 29½                     | 301/4                   | 31   | 313/4                           |
| iolai ciolcii                                       |                                  | 2374                    |                                      |                  |  | 2074   | 2372                    | 3074                    | 31   | 3174                            |
|   |                                  |                         |                                      | Measurement      |  |  |                         |                         |  |                                 |
| Stature   | 631/2                            | 64                      | 641/2                                | 65               | 651/2  | 66   | 661/2                   | 67                      | 671/2  | 68                              |
| Cervical height                                     | 541/2                            | 55                      | 55½                                  | 56               | 56½  | 57   | 571/2                   | 58                      | 581/2  | 59                              |
| Vaist height  | 391/4                            | 39½                     | 393/4                                | 40               | 401/4  | 401/2  | 403/4                   | 41                      | 411/4  | 411/2                           |
| High hip height                                     | 351/4                            | 35½                     | 35 <sup>3</sup> / <sub>4</sub>       | 36               | 361/4  | 36½  | 363/4                   | 37                      | 371/4  | 371/2                           |
| Hip height  | 311/4                            | 31½                     | 313/4                                | 32               | 321/4  | 32½  | 323/4                   | 33                      | 331/4  | 331/2                           |
| Crotch height                                       | 29½<br>17%                       | 29½<br>17¾              | 29½<br>17%                           | 29½<br>18        | 291/2  | 291/2  | 29½<br>18%              | 29½<br>18½              | 29½<br>18%   | 29½<br>18¾                      |
| Knee height   | 17%<br>23/4                      | 23/4                    | 23/4                                 | 23/4             | 181/ <sub>8</sub><br>2 <sup>3</sup> / <sub>4</sub> | 18 <sup>1</sup> / <sub>4</sub> 2 <sup>3</sup> / <sub>4</sub> | 16%<br>23/4             | 23/4                    |  | 16%<br>23/4                     |
| Ankle height  |                                  |                         |                                      |                  |  |  |                         |                         | 23/4   |                                 |
| Naist length (front) Naist length (back) (on Curve) | 13½<br>15½                       | 13¾<br>15¾              | 14                                   | 141/4            | 14½<br>16½   | 14 <sup>3</sup> / <sub>4</sub>                               | 15<br>17                | 151/4<br>171/4          | 15½<br>17½   | 15¾<br>17¾                      |
| True rise   | 93/4                             | 10                      | 101/4                                | 101/2            | 103/4  | 11   | 111/4                   | 111/2                   | 113/4  | 1794                            |
| True lise   | 374                              |                         |                                      |                  |  |  | 1174                    | 1172                    | 1174   | 12                              |
|   |                                  |                         | Width and Lei                        | <del>1</del> ANT | - PARA   | viet   | <del>\</del>            |                         |  |                                 |
| Across shoulder                                     | 143/8                            | 145/8                   | 147/8                                | 151/8            | 153/8  | 153/4  | 161/8                   | 161/2                   | 17   | 171/2                           |
| Cross-back width                                    | 131/8                            | 141/8                   | 143/8                                | 145/8            | 147/8  | 151/4  | 155/8                   | 16                      | 161/2  | 17                              |
| Cross-chest width                                   | 12 <sup>7</sup> / <sub>8</sub>   | 131/8                   | 13%                                  | 13%              | 131/8  | 141/4  | 145/8                   | 15                      | 151/2  | 16                              |
| Shoulder length                                     | 4 <sup>15</sup> / <sub>16</sub>  | 5                       | 5½16 A                               | 51/8             | 53/16  | 55/16  | 57/16                   | 5%16                    | 53/4   | 5 <sup>15</sup> / <sub>16</sub> |
| Shoulder slope (degrees)                            | 23                               | 23                      | 23                                   | 23               | 23   | 23   | 23                      | 23                      | 23   | 23                              |
| Arm length shoulder to wrist                        | 22 <sup>15</sup> / <sub>16</sub> | 231/8                   | 23 <sup>5</sup> / <sub>16</sub> st/b | 23½              | 2311/16  | 237/8 75   | 241/16828               | 241/413e9               | 247/16 _ d5  | 245/8                           |
| Arm length shoulder to elbow                        | 131/4                            | 13%                     | 131/2                                | 135/8            | 133/4  | 137/8  | 14                      | 141/8                   | 141/4  | 143/8                           |
| Arm length center back neck to wrist                | 301/8                            | 307/16                  | 303/4                                | 311/16           | 31%  | 313/4  | 321/8                   | 321/2                   | 3215/16  | 33%                             |
| Bust point to bust point                            | 7                                | 71/4                    | <b>7</b> ½                           | 73/4             | 8  | 81/4   | 81/2                    | 83/4                    | 9  | 91/4                            |
| Neck to bust point                                  | 91/4                             | 91/2                    | 93/4                                 | 10               | 101/4  | 10%  | 11                      | 113/8                   | 117/8  | 123/8                           |
| Scye depth  | 71//8                            | 71/4                    | 73/8                                 | 71/2             | <b>7</b> 5//8                                      | 73/4   | 77/8                    | 8                       | 81//8  | 81/4                            |
|   |                                  |                         |                                      | easurements      |  |  |                         |                         |  |                                 |
| Size  | 2                                | 4                       | 6                                    | 8                | 10   | 12   | 14                      | 16                      | 18   | 20                              |
| Bust  | 81.3                             | 83.8                    | 86.4                                 | 89.0             | 91.4   | 95.2   | 99.1                    | 102.9                   | 107.9  | 113                             |
| Vaist   | 61.0                             | 63.5                    | 66.0                                 | 68.5             | 71.1   | 74.9   | 78.7                    | 82.6                    | 87.6   | 92.7                            |
| High hip  | 80.0                             | 82.5                    | 85.1                                 | 87.6             | 90.2   | 94.0   | 97.7                    | 101.6                   | 106.7  | 111.8                           |
| tip<br>Aid nook                                     | 86.4                             | 90.2                    | 92.7                                 | 95.2             | 97.8   | 101.6  | 105.4                   | 109.2                   | 114.3  | 119.4                           |
| Mid-neck  | 33.0                             | 33.7                    | 34.3                                 | 34.9             | 35.6   | 36.5   | 37.5                    | 38.4                    | 39.7   | 40.1                            |
| Neck base   | 34.3                             | 34.9                    | 35.6                                 | 36.2             | 36.8   | 37.8   | 38.7                    | 39.7                    | 40.9<br>46.7   | 42.2                            |
| Armscye<br>Jpper arm                                | 36.2<br>25.4                     | 37.1<br>26.0            | 38.1<br>26.7                         | 39.1<br>27.3     | 40.0<br>27.9                                       | 16.2<br>28.9   | 43.2<br>29.8            | 44.8<br>30.8            | 46.7<br>32.4   | 48.6<br>34.0                    |
| opper arm<br>Elbow                                  | 23.8                             | 26.0                    | 24.4                                 | 27.3<br>24.8     | 27.9<br>25.1                                       | 26.9<br>25.7   | 29.8<br>26.4            | 27.0                    | 32.4<br>27.9   | 28.9                            |
| -idow<br>Vrist                                      | 23.8<br>14.3                     | 14.6                    | 24.4<br>14.9                         | 24.8<br>15.2     | 25.1<br>15.6                                       | 25.7<br>15.9   | 26.4<br>16.2            | 27.0<br>16.5            | 27.9<br>16.8   | 28.9<br>17.1                    |
| high, max   | 49.5                             | 51.4                    | 53.3                                 | 55.2             | 57.2   | 59.7   | 62.2                    | 64.5                    | 67.9   | 71.1                            |
| high, mid   | 49.5                             | 47.6                    | 48.9                                 | 50.2             | 51.4   | 53.3   | 55.2                    | 57.1                    | 59.7   | 62.2                            |
| (nee  | 33.0                             | 34.0                    | 34.9                                 | 35.9             | 36.8   | 38.1   | 39.4                    | 40.6                    | 41.9   | 43.2                            |
| Calf  | 31.8                             | 32.7                    | 33.6                                 | 34.6             | 35.6   | 36.8   | 38.1                    | 39.4                    | 40.6   | 41.9                            |
| Ankle   | 21.3                             | 21.9                    | 22.5                                 | 23.2             | 23.8   | 24.4   | 25.1                    | 26.7                    | 26.4   | 27.0                            |
| /ertical trunk                                      | 142.2                            | 146.0                   | 149.9                                | 153.7            | 157.5  | 161.3  | 165.1                   | 167.6                   | 172.7  | 176.5                           |
|   | 63.5                             | 65.4                    | 67.3                                 | 69.2             | 71.1   | 73.0   | 75.0                    | 76.8                    | 78.7   | 80.6                            |
|   |                                  | 00.4                    | 07.0                                 | 03.2             | 7 1.1  | 7 0.0  | 7 0.0                   | 7 0.0                   | 10.1   | 50.0                            |
| Total crotch  |                                  |                         | 1/04!!                               | 1000:            | o in cm  |  |                         |                         |  |                                 |
| otal crotch   |                                  |                         |                                      | /leasurement     |  |  |                         |                         |  |                                 |
| Total crotch Stature                                | 161.3                            | 162.6<br>130.7          | 163.8                                | 165.1            | 166.4  | 167.6  | 169.0                   | 170.2                   | 171.5  | 172.7                           |
|   |                                  | 162.6<br>139.7<br>100.3 |                                      |                  |  | 167.6<br>144.8<br>102.9                                      | 169.0<br>146.1<br>103.5 | 170.2<br>147.3<br>104.1 | 171.5<br>148.6<br>104.8  | 172.7<br>149.9<br>105.4         |