

| <b>BMI PERCENTILES FOR OVERWEIGHT, OBESE AND MORBIDLY OBESE</b> |                  |                  |                  |                  |                  |                  |
|---|------------------|------------------|------------------|------------------|------------------|------------------|
|   | <b>MALES</b>     |                  |                  | <b>FEMALES</b>   |                  |                  |
| <b>AGE</b>  | 85 <sup>th</sup> | 95 <sup>th</sup> | 99 <sup>th</sup> | 85 <sup>th</sup> | 95 <sup>th</sup> | 99 <sup>th</sup> |
| <b>2</b>  | 18.2             | 19.3             | na               | 18.0             | 19.0             | na               |
| <b>3</b>  | 17.4             | 18.2             | na               | 17.2             | 18.2             | na               |
| <b>4</b>  | 16.9             | 17.8             | na               | 16.8             | 18.0             | na               |
| <b>5</b>  | 16.8             | 18.0             | 20.1             | 16.8             | 18.2             | 21.5             |
| <b>6</b>  | 17.0             | 18.4             | 21.6             | 17.2             | 18.8             | 23.0             |
| <b>7</b>  | 17.4             | 19.1             | 23.6             | 17.8             | 19.6             | 24.6*            |
| <b>8</b>  | 18.0             | 20.0             | 25.6*            | 18.3             | 20.6             | 26.4*            |
| <b>9</b>  | 18.8             | 21.0             | 27.6*            | 19.0             | 21.8             | 28.2*            |
| <b>10</b>   | 19.4             | 22.1             | 29.3*            | 20.0             | 23.0             | 29.9**           |
| <b>11</b>   | 20.2             | 23.2             | 30.7**           | 20.8             | 24.0             | 31.5**           |
| <b>12</b>   | 21.0             | 24.2             | 31.8**           | 20.7             | 25.2*            | 33.1**           |
| <b>13</b>   | 21.8             | 25.1*            | 32.6**           | 22.5             | 26.2*            | 34.6**           |
| <b>14</b>   | 22.8             | 26.0*            | 33.2**           | 23.3             | 27.2*            | 36.0**           |
| <b>15</b>   | 23.4             | 26.8*            | 33.6**           | 24.0             | 28.1*            | 37.5**           |
| <b>16</b>   | 24.2             | 27.5*            | 33.9**           | 24.6*            | 28.8*            | 39.1**           |
| <b>17</b>   | 24.9             | 28.2*            | 34.4**           | 25.2*            | 29.6**           | 40.8**           |
| <b>18</b>   | 25.8             | 29.0*            | na               | 25.7*            | 30.2**           | na               |
| <b>19</b>   | 26.3             | 29.7*            | na               | 26.1*            | 31.0**           | na               |
| <b>20</b>   | 27.0             | 30.6**           | na               | 26.4*            | 31.8**           | na               |

\*Exceeds adult overweight BMI, \*\* exceeds adult obese BMI, na= not available

## U.S. WAIST CIRCUMFERENCE(cm) REFERENCE VALUES

| AGE       | MALES            |                  | FEMALES          |                  |
|-----------|------------------|------------------|------------------|------------------|
|           | 75 <sup>th</sup> | 90 <sup>th</sup> | 75 <sup>th</sup> | 90 <sup>th</sup> |
| <b>2</b>  | 49.7             | 52.3             | 50.3             | 53.7             |
| <b>3</b>  | 52.6             | 56.1             | 53.1             | 57.3             |
| <b>4</b>  | 55.6             | 60.0             | 56.0             | 61.0             |
| <b>5</b>  | 58.6             | 63.8             | 58.9             | 64.6             |
| <b>6</b>  | 61.5             | 67.7             | 61.7             | 68.2             |
| <b>7</b>  | 64.5             | 71.5             | 64.6             | 71.9             |
| <b>8</b>  | 67.5             | 75.4             | 67.5             | 75.5             |
| <b>9</b>  | 70.5             | 79.2             | 70.4             | 79.1             |
| <b>10</b> | 73.4             | 83.1             | 73.3             | 82.8             |
| <b>11</b> | 76.4             | 86.9             | 76.2             | 86.4             |
| <b>12</b> | 79.4             | 90.8             | 79.0             | 90.0             |
| <b>13</b> | 82.4             | 94.6             | 81.9             | 93.6             |
| <b>14</b> | 85.3             | 98.4             | 84.8             | 97.3             |
| <b>15</b> | 88.3             | 102.3            | 87.7             | 100.9            |
| <b>16</b> | 91.3             | 106.1            | 90.6             | 104.5            |
| <b>17</b> | 94.2             | 110.0            | 93.5             | 108.2            |
| <b>18</b> | 97.2             | 113.8            | 96.3             | 111.8            |

NHANES data from Messiah, SE et al, Metab Syndr Related Disorders 9: 299, 2011

## Lipids by age and sex (Adapted from AAP CON 2008)

| Percentile /age yrs         | Males (mg/dl) |       |       | Females (mg/dl) |       |       |
|-----------------------------|---------------|-------|-------|-----------------|-------|-------|
|                             | 5-9           | 10-14 | 15-19 | 5-9             | 10-14 | 15-19 |
| Total Cholesterol           |               |       |       |                 |       |       |
| 75 <sup>th</sup> Acceptable | 168           | 173   | 168   | 177             | 171   | 176   |
| 95 <sup>th</sup> HIGH       | 186           | 201   | 191   | 197             | 205   | 208   |
| Triglyceride                |               |       |       |                 |       |       |
| 75 <sup>th</sup> Acceptable | 58            | 74    | 88    | 74              | 85    | 85    |
| 95 <sup>th</sup> HIGH       | 85            | 111   | 143   | 120             | 120   | 126   |
| LDL-Cholesterol             |               |       |       |                 |       |       |
| 75 <sup>th</sup> Acceptable | 103           | 109   | 109   | 115             | 110   | 110   |
| 95 <sup>th</sup> HIGH       | 129           | 133   | 130   | 140             | 136   | 137   |
| HDL-Cholesterol             |               |       |       |                 |       |       |
| 25 <sup>th</sup> Acceptable | 49            | 46    | 39    | 48              | 45    | 43    |
| 5 <sup>th</sup> LOW         | 38            | 37    | 30    | 36              | 37    | 35    |