

Table S1. Reference range of body compartments determined by different BIA-derived equations

Author, year	Subjects	Reference range by BIA	Remarks
Kyle et al, 2004 [1]	343 White healthy subjects aged 2-94 years	<p>Male FFM (kg):  20-29y: <math>61.7 \pm 5.9</math>  30-39y: <math>63.2 \pm 6.2</math>  40-49y: <math>63.1 \pm 3.9</math>  50-59y: <math>63.3 \pm 6.2</math>  60-69y: <math>59.2 \pm 6.1</math>  70-79y: <math>56.7 \pm 5.2</math>  &gt;80y: <math>54.0 \pm 6.0</math></p> <p>Women FFM (kg):  20-29y: <math>44.9 \pm 2.6</math>  30-39y: <math>45.1 \pm 3.6</math>  40-49y: <math>44.8 \pm 5.6</math>  50-59y: <math>45.8 \pm 6.5</math>  60-69y: <math>43.0 \pm 4.5</math>  70-79y: <math>42.2 \pm 5.2</math>  &gt;80y: <math>38.8 \pm 3.1</math></p>	
Sun et al, 2003 [2]	1474 Whites and 355 Blacks aged 12–94 years	Not specified	For both TBW and FFM, equation tended to underestimate in Black and overestimate in White
Dey et al, 2003 [3]	101 Swedish elderly ( $\geq 70$ years)	<p>FFM (kg):  70y: <math>50.4 \pm 9</math>  75y: <math>48.7 \pm 8</math></p> <p>FM (kg)  70y: <math>25.5 \pm 8.3</math>  75y: <math>22.3 \pm 7.2</math></p>	Reference values calculated by applying equation to 2 elderly cohorts (500 aged 70y and 323 aged 75 y)

Deurenberg et al, 1995 [4]	137 Dutch healthy controls	Not specified	Prediction of ECW and TBW is dependent on body water distribution
Barbosa-Silva et al, 2005 [5]	1967 healthy controls (multiethnicity)	<p>Male phase angle (degree):</p> <p>18-20y: <math>7.90 \pm 0.47</math></p> <p>20-39y: <math>8.02 \pm 0.75</math></p> <p>30-39y: <math>8.01 \pm 0.85</math></p> <p>40-49y: <math>7.76 \pm 0.85</math></p> <p>50-59y: <math>7.31 \pm 0.89</math></p> <p>60-69y: <math>6.96 \pm 1.10</math></p> <p><math>\geq 70y</math>: <math>6.19 \pm 0.97</math></p> <p>Female phase angle (degree):</p> <p>18-20y: <math>7.04 \pm 0.85</math></p> <p>20-39y: <math>6.98 \pm 0.92</math></p> <p>30-39y: <math>6.87 \pm 0.84</math></p> <p>40-49y: <math>6.91 \pm 0.85</math></p> <p>50-59y: <math>6.55 \pm 0.87</math></p> <p>60-69y: <math>5.97 \pm 0.83</math></p> <p><math>\geq 70y</math>: <math>5.64 \pm 1.02</math></p>	<p>Mean of phase angle was <math>7.48 \pm 1.10^\circ</math> for men, and <math>6.53 \pm 1.01^\circ</math> for women respectively.</p> <p>Phase angle was significantly lower in women than in men and was inversely correlated with age</p>

#### References:

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5. Barbosa-Silva MC, Barros AJ, Wang J, Heymsfield SB, Pierson RN Jr. Bioelectrical impedance analysis: population reference values for phase angle by age and sex. *Am J Clin Nutr*. 2005 Jul;82(1):49-52.