### Table G9.A5. Body Composition, Experimental Studies In Children and Adolescents of Normal Weight or Mixed Weight Status. Part 1. Randomized Controlled Trials

<table>
<thead>
<tr>
<th>Reference</th>
<th>Subjects/Duration</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliakim et al., 1996 (1)</td>
<td>N=44, 100% F, 15-17 years, 68% white, 20% Asian, 11% Hispanic, Duration: 5 weeks</td>
<td>No significant effect on BMI, but increase in thigh muscle volume</td>
</tr>
<tr>
<td>Eliakim et al., 1997 (2)</td>
<td>N=44, 100% F, 15-17 years, 61% white, 20% Asian, 18% Hispanic, Duration: 5 weeks</td>
<td>No significant effect on BMI, but increase in thigh muscle volume</td>
</tr>
<tr>
<td>Eliakim et al., 1998 (3)</td>
<td>N=44, 100% M, 15-17 years, 71% Asian, 20% white, 9% Hispanic, Duration: 5 weeks</td>
<td>Small significant increase in weight and thigh muscle volume</td>
</tr>
<tr>
<td>Ewart et al., 1998 (4)</td>
<td>N=88, 100% F, 70% AA, Duration: 18 weeks</td>
<td>No change in BMI in either group</td>
</tr>
<tr>
<td>Eliakim et al., 2000 (5)</td>
<td>N=44, 100% M, 15-17 years, 71% Asian, 20% white, 9% Hispanic, Duration: 5 weeks</td>
<td>Small decrease in thigh fat and subcutaneous abdominal adipose tissue</td>
</tr>
<tr>
<td>MacKelvie et al., 2001 (6)</td>
<td>Group Randomized Trial N=177, 100% F, Duration: 1 school year (&lt; 10 months)</td>
<td>No effect of high-impact brief activity on weight and fat mass</td>
</tr>
<tr>
<td>Mandigout et al., 2002 (7)</td>
<td>Group Randomized Trial N=19, 47% F, 10-11 years, Duration: 13 weeks</td>
<td>No effect on percent fat mass and percent muscle mass</td>
</tr>
<tr>
<td>MacKelvie et al., 2003 (8)</td>
<td>Group Randomized Trial N=139, 54% F, 9-10 years, Duration: 2 school years</td>
<td>Females: No effect on weight and fat mass. Males: No effect on weight and fat mass, significant increase in total body lean mass</td>
</tr>
<tr>
<td>Obert et al., 2003 (9)</td>
<td>Group Randomized Trial N=35, 49% F, 10-11 years, Duration: 13 weeks</td>
<td>No effect on percent fat</td>
</tr>
<tr>
<td>Tolfrey et al., 2004 (10)</td>
<td>Group Randomized Trial N=32, 44% F, 10.6±0.6 years, Duration: 12 weeks</td>
<td>Negligible effects of training on weight and skinfolds</td>
</tr>
<tr>
<td>Baquet et al., 2004 (11)</td>
<td>Group Randomized Trial N=110, 58% F, 8-11 years, Duration: 7 weeks</td>
<td>No difference in body weight and percent fat</td>
</tr>
<tr>
<td>Fitzgibbon et al., 2005 (12)</td>
<td>Group Randomized Trial N=409, about 4 years at baseline, 80%+ AA, Duration: 14 weeks</td>
<td>Smaller gain in BMI in intervention preschoolers</td>
</tr>
<tr>
<td>Haerens et al., 2006(13)</td>
<td>Group Randomized Trial N=2,840, mean age 13.1±0.8, Duration: 2 school years</td>
<td>Smaller gain in BMI in intervention and parent support group</td>
</tr>
</tbody>
</table>

AA, African American; BMI, body mass index; F, female; M, male; N, number
Table G9.A5.  Body Composition, Experimental Studies In Children and Adolescents of Normal Weight or Mixed Weight Status. Part 2. Non-Randomized Controlled Trials

<table>
<thead>
<tr>
<th>Reference</th>
<th>Subjects/Duration</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Williford et al., 1996 (14)</td>
<td>N=17, 0% F, 11-13 years, 100% AA, Duration: 15 weeks</td>
<td>No effect on weight and sum of skinfold thicknesses</td>
</tr>
<tr>
<td>Stoedefalke et al., 2000 (15)</td>
<td>N=34, 100% F, 13-14 years, Duration: 20 weeks</td>
<td>No effect on skinfold thicknesses</td>
</tr>
<tr>
<td>Baquet et al., 2001 (16)</td>
<td>N=551, 47% F, 11-16 years, Duration: 10 weeks</td>
<td>Small increase BMI and percent fat</td>
</tr>
<tr>
<td>Sundberg et al., 2001 (17)</td>
<td>N=228, 46% F, 12-16 years, Duration: 3-4 years</td>
<td>No effect of added physical education on fat mass and lean body mass</td>
</tr>
<tr>
<td>Baquet et al., 2002 (18)</td>
<td>N=53, 57% F, 9.7±0.8 years, Duration: 7 weeks</td>
<td>No difference in body weight and percent fat</td>
</tr>
<tr>
<td>Annesi et al., 2005 (19)</td>
<td>N=570, 40% F, 5-12 years, &gt;95% AA, Duration: 12 weeks</td>
<td>Significant decrease in percent fat</td>
</tr>
<tr>
<td>Schneider et al., 2007 (20)</td>
<td>N=122, 100% F, 10th-11th, Duration: 1 school year</td>
<td>No effect on percent fat</td>
</tr>
<tr>
<td>Viskic-Stalec et al., 2007 (21)</td>
<td>N=220, 100% F, 16-18 years, Duration: 1 school year</td>
<td>Larger declines in weight and percent fat in Experimental group than in Control group</td>
</tr>
</tbody>
</table>

AA, African American; BMI, body mass index; F, female; N, number

Reference List


