Alternate day fasting
For weight loss and heart disease risk reduction

Krista Varady, Ph.D.
Associate Professor of Nutrition
University of Illinois, Chicago
Most commonly used weight loss intervention: 
Calorie restriction (CR)
Problem with calorie restriction:
Dietary adherence begins to decline after 8 weeks
How can we increase adherence to calorie restriction to ensure consistent weight loss?
Perhaps by only requiring calorie restriction every other day?

Day of ad libitum feeding

Day of 75% restriction
Alternate day fasting (ADF)

Feed day
Day of ad libitum feeding

Fast day
Day of 75% restriction
In this way, the person always gets to look forward to the next day of eating anything they want.

Fast day

Feed day
Pilot study findings:

ADF is a viable option for weight loss in obese adults

-5.6 kg

Varady KA et al, AJCN. 2009.
Lean mass is retained during ADF

<table>
<thead>
<tr>
<th></th>
<th>Baseline phase</th>
<th>Controlled feeding</th>
<th>Self-selected feeding</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Week 1</td>
<td>Week 3</td>
<td>Week 7</td>
</tr>
<tr>
<td>Body weight (kg)</td>
<td>96.4 ± 5.3</td>
<td>96.5 ± 5.2</td>
<td>93.7 ± 5.0*</td>
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<tr>
<td>Fat mass (kg)</td>
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<tr>
<td>43.0 ± 2.2</td>
<td>43.5 ± 2.5</td>
<td>41.3 ± 2.7</td>
<td>38.1 ± 1.8*</td>
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<tr>
<td>Fat free mass (kg)</td>
<td>52.0 ± 3.6</td>
<td>51.4 ± 3.4</td>
<td>51.1 ± 3.2</td>
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<tr>
<td>WC (cm)</td>
<td>109 ± 2</td>
<td>109 ± 3</td>
<td>106 ± 3</td>
</tr>
</tbody>
</table>

All values reported as mean ± SEM.

* Significantly different from baseline (week 3), $P < 0.05$ (One-factor ANOVA with Bonferroni analysis)

Subjects do not overeat on the feed days

Feed day intake: 110% of needs

Hunger on the fast day decreases during the trial.

Plasma lipids decrease with ADF

Klempel MC et al, Metab. 2013.
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