

The Power of Protein

Summary Handout



Consuming higher-protein diets improves health outcomes across the lifespan – studies support positive outcomes with increased protein consumption in the areas of:

- **Weight Management:**
 - Contributes to less weight gain
- **Strength:**
 - Improves lean mass and functional strength
- **Cardiovascular Health & Diabetes:**
 - Higher-protein diets elicits improvements in some risk factors for diabetes & cardiovascular disease with no detrimental effects observed
- **Appetite Control & Satiety**
 - Improves appetite control & satiety; Higher protein preloads increase fullness more than lower protein versions
- **Decreased Daily Caloric Intake:**
 - Limited but supporting evidence for protein & reduced intake
- **Glycemic Control:**
 - Higher-protein meals improve glycemic control at the next eating meal

High quality animal proteins are excellent source due to their protein density

Key protein-related factors of significance

- **Quantity:** ~30 g protein/meal; 1.2-1.6 g protein/kg/d
 - Higher end (i.e., 1.6 g/kg/d) during energy-restriction
 - Lower end (i.e., 1.2 g/kg/d) weight management
- **Quality:** Healthful diet includes protein variety and intake of ~20-30 g / meal appears to be optimal
 - Leucine appears to influence muscle & satiety mechanisms

Unique opportunity for increased dietary protein within the breakfast eating occasion

- Compared to skipping or eating a NP breakfast, a HP breakfast impacts:
 - Daily satiety (fullness & PYY)
 - Daily appetite (hunger & ghrelin)
 - Evening brain-driven food cravings
 - Daily food intake (primarily from unhealthy snacks)
- Consuming a high protein breakfast improved glycemic control throughout the day vs. skipping breakfast

Protein Quality

 <p>4 oz 3 oz cooked 95% lean ground beef = 22g</p>	 <p>4 oz 3 oz cooked flank or sirloin steak = 23-25g</p>	 <p>4 oz 3 oz cooked pork tenderloin = 22g</p>	 <p>3.5 oz 3 oz cooked chicken breast = 26g</p>
 <p>4 oz 3.5 oz fresh fish = 25g</p>	 <p>9 oz 4 oz Boca Veggie Crumbles = 13g</p>	 <p>16 oz 1 cup black beans = 15g</p>	 <p>28 oz 1 cup quinoa = 9g</p>
 <p>11 oz 4 oz firm tofu = 11g</p>	 <p>6 oz 8 oz Tempeh = 41g</p>	 <p>10.5 oz 6 oz nonfat Greek plain yogurt = 17g</p>	 <p>9 oz 8 oz low-fat cottage cheese = 27g</p>
 <p>30 oz 8 oz nonfat, skim milk = 8g</p>	 <p>5 eggs 2 large eggs = 12g</p>	 <p>10.5 oz ¼ cup mixed nuts = 17g</p>	 <p>7.5 Tbsp 1 Tbsp peanut butter = 4g</p>

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