

Water for weight loss

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Clinical question

Does increasing water intake lead to weight loss?

Bottom line

Results of small to moderate size studies with widely variable designs and compliance issues are inconsistent. Replacing caloric beverages with diet beverages (DBs) or water inconsistently improved weight loss; replacing DBs with water produced even less clear results. Preloading water (500 mL) before meals may improve weight loss by 1 to 2 kg over 3 months.

Evidence

Results are from RCTs and statistically different. Baseline body mass index was 31 to 36 kg/m² (weight 76 to 101 kg).

- Increasing water.
 - Two RCTs (240 women and 38 adolescents, respectively, who consumed about 400 calories/d from sugary drinks) comparing counseling with or without advice to drink water found the following after 24 to 36 weeks.^{1,2}
 - Weight loss: Not different.
 - One trial provided water (2 to 3 L/d).¹ Only 1 in 19 participants achieved target water intake in 1 RCT.²
- Replacing caloric beverages.
 - Adherence counseling plus replacing more than 2 caloric beverages with water or DBs vs weight loss advice³ (N=318, consuming about 350 calories/d from sugary drinks) resulted in the following after 6 months.
 - Weight loss: Not different.
 - More than 5% weight loss: 20% (water, DBs) vs 11% (advice); NNT=11.
- Replacing DBs.
 - Cognitive behavioural therapy with continued DBs or water^{4,5} (N=303, consuming about 700 mL of beverages daily) resulted in the following after 52 weeks.
 - Weight loss: 6 kg (DBs) vs 2 kg (water).
 - Funder: American Beverage Association.
 - A hypocaloric diet with or without replacing DBs with water^{6,7} (71 women) resulted in the following after 18 months.
 - Weight loss: 0.1 kg (diet) vs 1.7 kg (diet, water).
 - A similar^{6,7} RCT (81 women) found weight loss of 5.3 kg (diet) vs 6.4 kg (diet, water) after 24 weeks.⁸
- "Preloading" water (500 mL, 30 minutes before meals).
 - A hypocaloric diet with or without water⁹ (N=48) resulted in the following after 12 weeks.
 - Weight loss: 7.4 kg (preloaded water) vs 5.5 kg (diet).

-An RCT of water vs "imagining being full"¹⁰ (N=84) found the following after 12 weeks.

- Weight loss: 2.4 kg (preloaded) vs 1.2 kg (imagining).
- More than 5% weight loss: 27% (preloaded) vs 5% (imagining), NNT=5.

- A systematic review found similar results.¹¹

Context

- Obesity guidelines do not address water intake.¹²
- Limitations included compliance issues² and analyzing the data for only those who completed the study.⁹

Implementation

Evidence for drinking 8 glasses of water daily comes mainly from a US survey (N=33,000, 1988-1994) that found median total water intake (about 20% from food) to be 3.7 L for men and 2.7 L for women aged 19 to 30.¹³ Water requirements (eg, activity levels, heat) vary, so a recommendation could not be made for half of apparently healthy adults.¹⁴

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Competing interests
None declared

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