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**Title:** Influence of body posture and ear clearing on body buoyancy during diving

**Authors:** Brattstrom, P  
Lindvall, B  
Lundgren, CEG  
Ornhagen, HC

**Keywords:** ear  
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**Abstract:** The amount of gas introduced into the gastrointestinal (GI) tract during diving was studied by underwater weighing. The influence of body posture and ear clearing methods was determined. Ten subjects were studied in wet simulated dives to a 30-m depth. Clearing the ears by swallowing and descending head first gave a mean weight reduction (before dive-after dive) of 0.29 kg; descending in the upright position gave a mean weight reduction of 0.16 kg. Swallowing during descent (upright posture) caused a 0.11 kg greater weight reduction than blowing against the clamped nose. The greatest weight reduction (1.34 kg) occurred in a head-first dive (swallowing) with 7 cycles of depth changes between 30 and 25 m. During the ascent the subject experienced considerable abdominal discomfort. It was concluded that swallowing during diving, particularly in the head-down position, may introduce large amounts of gas into the GI tract and that during diving one should try to eliminate ingested gas by belching.

**Description:** Undersea and Hyperbaric Medical Society, Inc. (<http://www.uhms.org> )

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