**Water Intoxication**

This exercise explores the impact of over-hydration, which can create hyponatremic cells as described in chapter 3.

1. **Famous cases.** Ask students to find high-profile cases of water intoxication in the news. Examples include soldiers in training or the radio station challenge. How prevalent is death from water intoxication?

Videos that may help introduce the topic and examples are (though availability may vary over time):

* Science Insider: <https://www.youtube.com/watch?v=cDCEGMjbNug>
* Brainiac: <https://www.youtube.com/watch?v=LZzJBGnpzqQ>

1. **Symptoms, causes, and solutions.** Ask students to discuss in pairs and report back to the large group the warning signs of water intoxication, along with specific causes and what to do in the case it occurs.
2. **Interactions with drugs or other factors.** Guide students through exploration of drugs, such as Ecstasy and prescription medications, effects on water intoxication.

Related references:

Garigan, T. P., & Ristedt, D. E. (1999). Death from hyponatremia as a result of acute water intoxication in an Army basic trainee. *Military medicine*, *164*(3), 234-238.

Noakes, T. D., Goodwin, N., Rayner, B. L., Branken, T. R. E. V. O. R., & Taylor, R. K. (1985). Water intoxication: a possible complication during endurance exercise. *Medicine and Science in Sports and Exercise*, *17*(3), 370-375.

Stormont, J. M., & Waterhouse, C. (1961). The genesis of hyponatremia associated with marked overhydration and water intoxication. *Circulation*, *24*(2), 191-203.