

## Summary of Activity: WHO and Ca/Mg in Drinking Water

Since 2000, the WHO (World Health Organisation) has been investigating the evidence behind the hypothesis that minerals (specifically calcium and magnesium) in drinking water may be beneficial to cardiovascular disease. In March 2009, the WHO published a booklet: **Calcium and Magnesium in Drinking-water**, Public health significance ([http://www.who.int/water\\_sanitation\\_health/publications/publication\\_9789241563550/en/](http://www.who.int/water_sanitation_health/publications/publication_9789241563550/en/)). The booklet presents the current position of the WHO following several years of investigation and, specifically, a Symposium on Health Effects of Calcium and Magnesium in Drinking Water, held in Baltimore in April 2006.

The conclusion of the UKWTA (<http://www.ewta.eu/assets/PDFs/UKWTA-Position-paper.pdf>) is that the evidence for a potential health benefit from water hardness is very weak and confined to magnesium content, for which the contribution to dietary intake would be trivial. The justification for any informative action is, at this stage, highly questionable and, when balanced against the benefits of soft (or softened) water, and against the benefits of optimum hydration, positive statement or action is inappropriate unless and until there are definitive conclusions from the recommended research.

In January 2010, the WHO posted on its website a Background Document on Hardness in Drinking-water, which was intended to be used for the development of their Guidelines for Drinking-water Quality. This document discriminated against the water treatment industry unjustifiably by making specific and exclusive references to softening and reverse osmosis, and a response (<http://www.ewta.eu/assets/PDFs/Letter-to-Robert-Bos-230210.pdf>) was sent to the WHO by the EWTA and other companies and associations. The WHO response (<http://www.ewta.eu/assets/PDFs/WHO-Reply-120810.pdf>) acknowledged the discrimination and expressed the intention to address other relevant sources.

The background document has now been revised: ([http://whqlibdoc.who.int/hq/2010/WHO\\_HSE\\_WSH\\_10.01\\_10\\_Rev1\\_eng.pdf](http://whqlibdoc.who.int/hq/2010/WHO_HSE_WSH_10.01_10_Rev1_eng.pdf)) and it now addresses other sources of water supply such as desalinated, reused, naturally soft and rain water.

It is also more balanced in the way which it represents and interprets the evidence for health benefits associated with hardness minerals in drinking-water. However, it makes reference to increased amounts of chloride in softened water which is technically incorrect and it refers to "recommended values" when considering reconstituting magnesium or calcium levels in treated water without defining the recommended values. In fact, the latest (fourth) version of the WHO Guidelines for Drinking-water Quality ([http://whqlibdoc.who.int/publications/2011/9789241548151\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241548151_eng.pdf)) were posted on the WHO website on 4th July 2011 and they identify "There are insufficient data to suggest either minimum or maximum concentrations for minerals at this time...". A letter has been sent to the WHO to clarify these and other points: Letter to WHO . The WHO has responded that the EWTA will be involved