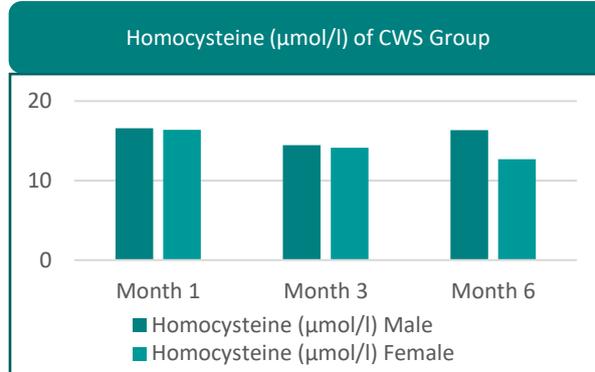


Cold Water Swimming for Health

Dr Gareth Wynne-McHardy (Researcher)

Cold water swimming on the 1st of January is traditional in some places¹, often with vague health benefits and enjoyment cited as the perceived motivations for this one-off behaviour. Though would these swimmers stand to benefit from resolving to habitually do so in the new year?

But would everyone benefit equally from adopting this new habit?



Chęcinska-Maciejewska et al.²

“Our recent studies suggest that gender response to repeated cold exposure might be dissimilar and may be accompanied by increased insulin sensitivity, lower body mass index (BMI), and diminished fat free mass in female CWS than in men”

Repeated exposure to cold water in the form of bathing or swimming has been found to yield a wide range of systemic changes and effects. This study² found improved levels of markers of cardiovascular disease risk in men and women Cold Water Swimmers (CWS), than in comparable moderately healthy people who are not Cold Water Swimmers.

Gender-Related Effect of Cold Water Swimming on the Seasonal Changes in Lipid Profile, ApoB/ApoA-1 Ratio, and Homocysteine Concentration in Cold Water Swimmers²

Objective

- ❖ The aim of this study was to evaluate any potential changes in a variety of biomarkers of cardiovascular importance across males and females, over the course of 6 months of CWS

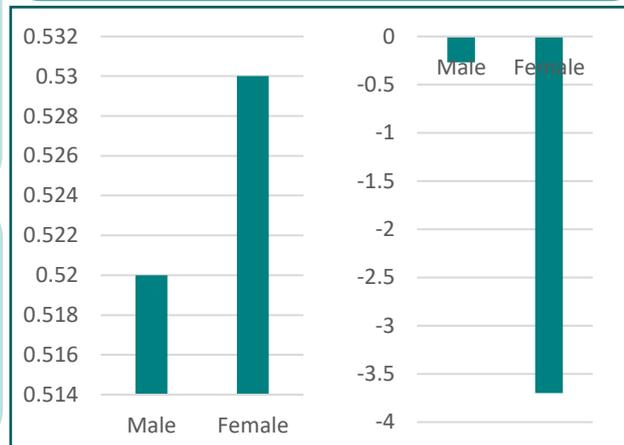
Methods

- 54 (32 male) CWS enrolled and 34 (18 male) completed the swimming season and were age-matched with a control group of 23 moderately active non-CWS individuals.
- From **October to April**, twice weekly swims in the **Baltic sea** were carried out. Exposure ranged from **5-15 minutes**.
- Measurements were made at baseline, month 3, and month 6.

Results

- ✓ **Homocysteine** levels were found to **drop** significantly in females in the **CWS group** and marginally in males of the same group.
- ✓ **Changes in other markers** of cardiovascular risk determining value **were less evident** in terms of their certainty and change over the study period.

Change in Homocysteine (µmole/l) from Month 1 to Month 6 in Control Group (L) and CWS Group (R)



Our thoughts:

- The **therapeutic merits of CWS** remain a topic worth **further investigation** with particular attention being owed to its potential benefits and harms across ages and sexes.
- The long-held belief that CWS impacts health may indeed hold.
- The **low statistical significance** of the **majority of the results** of this study make it **difficult to draw any conclusions**. Additionally, further **elaboration on** the motivations for the various **statistical tests** used would have provided useful **insight**.
- The effect of routine CWS on energy metabolism³, erythropoietin production⁴, amnesia⁵ and a whole host of other processes is of great interest and requires further study for any meaningful conclusions to be made.

References

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