

Cardiovascular disease

Can a hot bath a day keep the cardiologist away?

Taking a hot bath every day or most days may lower the risk of cardiovascular disease (CVD), a study from Japan has suggested.

Data were analysed on a sample of men and women, aged 40-59 years, from a prospective population-based study. A total of 30,076 participants with no history of CVD or cancer were followed up from 1990 to 2009.

Participants were classified by bathing frequency: 0-2 times/week, 3-4 times/week and every or almost every day.

The hazard ratios of incident CVD were adjusted for traditional CVD risk factors and selected dietary factors.

During 538,373 person-years of follow-up there were 2,097 incident cases of CVD, comprising 328 coronary heart disease events (275 myocardial infarctions and 53 sudden cardiac deaths) and 1,769 strokes (991 cerebral infarctions, 510 intracerebral haemorrhages, 255 subarachnoid haemorrhages and 13 unclassified strokes).

The hazard ratios (HR) for bathing almost every or every day versus 0-2 times/week were:

- **Total CVD** HR 0.72 (95% CI: 0.62-0.84; $P < 0.001$ for trend)
- **Total stroke** HR 0.74 (95% CI: 0.62-0.87; $P = 0.005$ for trend)
- **Intracerebral haemorrhage** HR 0.54 (95% CI: 0.40-0.73; $P < 0.001$ for trend)

No associations were observed between tub bathing frequency and risk of sudden cardiac death or subarachnoid haemorrhage.

The study authors concluded: 'We found that habitual tub bathing was

associated with a lower risk of CVD among middle-aged Japanese, suggesting a beneficial effect on the prevention of CVD.'

This Japanese study was the first prospective trial to investigate the long-term effects of tub bathing with regard to cardiovascular risk using a large population-based cohort.

Tub bathing is influenced by geographic and cultural variations and in Japan this involves sitting in hot water to shoulder depth. There are potential cardiovascular benefits of this including exposure to heat and water pressure which can improve haemodynamic function by increasing stroke volume and cardiac output and reducing vascular resistance.

It is, however, difficult to gauge the generalisability of these findings given that the Japanese style of bathing is not consistent throughout the world. Moreover, the study participants were relatively young (40-59 years) and the applicability of the findings to an older population is unknown.

Nevertheless, the cardiovascular benefit of head-free immersion in warm to hot water would appear to warrant further investigation given the results of this trial.

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Ukai T, Iso H, Yamagishi K et al. Habitual tub bathing and risks of incident coronary heart disease and stroke. *Heart* 2020;106:732-37