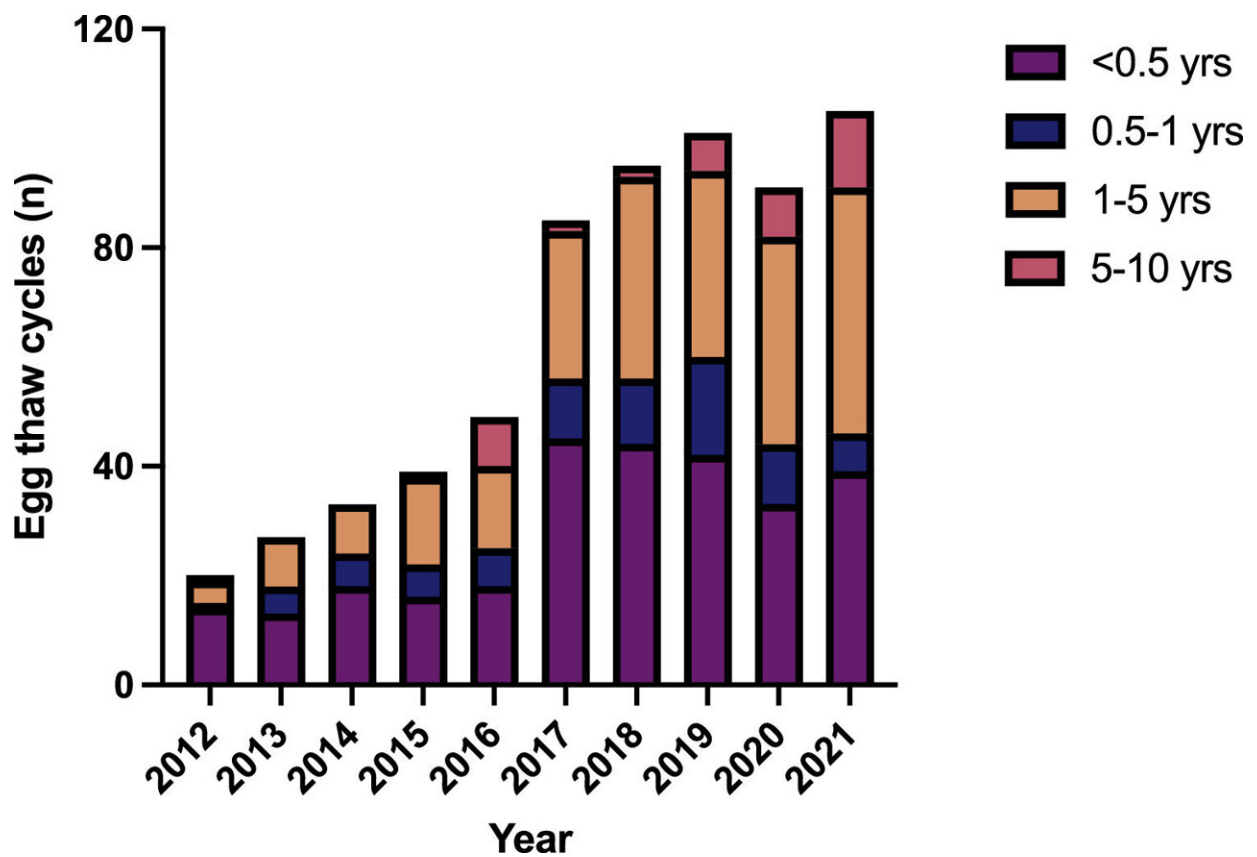


New research provides fresh insights into egg usage, donation and disposal after egg freezing

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Duration of cryostorage (years) by year at the time of thaw (2012 – 2021).

Credit: *Reproductive BioMedicine Online* (2023). DOI:

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New research from Monash University and Monash IVF has reported for the first time on outcomes following egg freezing in Australia, including patient return rates and the fate of unused eggs.

In recent years there has been a dramatic increase in egg freezing worldwide. While egg freezing has been available for well over a decade, little is known about the fate of frozen eggs and the decisions people make about what to do with surplus eggs.

The study, "Storage trends, usage and disposition outcomes following egg freezing," investigated the use of frozen eggs as well as the outcome of surplus eggs over a 10-year period. De-identified data on the outcomes of eggs frozen at Monash IVF clinics in Victoria, Australia from 2012–2021 were collected. The work is [published](#) in the journal *Reproductive BioMedicine Online*.

The study's lead researcher, Dr. Molly Johnston from the Monash Bioethics Center, said the research provides valuable information and insights not just for people considering egg freezing but also for the fertility industry, [health care providers](#) and policymakers about the future management and use of surplus eggs.

"The number of frozen eggs in storage continues to greatly outpace those that are used in treatment or relinquished from storage—either to be discarded or donated. This has implications for fertility clinics who will need new strategies to avoid an unsustainable build-up of stored frozen eggs," Dr. Johnston said.

Professor Luk Rombauts, the Medical Director at Monash IVF and President of the fertility Society of Australia and New Zealand, said the research also raised important questions for people considering freezing their eggs.

"Patients opt for egg freezing for a variety of reasons, and we've seen a steady increase particularly as a result of the COVID-19 pandemic. However, many haven't fully considered the fate of any unused eggs. As the prevalence of egg freezing grows, it's crucial to ensure patients are supported to make decisions about their surplus eggs that align with their preferences, values and circumstances," Professor Rombauts said.

The research also provides new evidence that, contrary to early hypotheses that frozen eggs could be a solution to donor egg shortages, surplus eggs are rarely donated either to research or for the purpose of reproduction.

Over the 10 year period, 3,082 cycles resulted in egg freezing with 2,800 eggs discarded, donated or exported to another clinic. In total, 645 egg thaw cycles were performed, which translated to less than 13% of patients with eggs in storage returning each year.

Of those who removed their eggs from storage, only 15% elected to donate surplus eggs to others for reproductive purposes. There were no surplus eggs donated to research across the study period, due to a legislative requirement for an active research project, of which none were affiliated with the clinics included in the study. Clinics in Australia do not store eggs prospectively for future research.

Dr. Johnston said not permitting egg donation for future research could be a wasted opportunity for further advancement of fertility techniques.

"Restricting the donation of eggs for research has implications for both those who are facing the decision of what to do with surplus eggs, who would have preferred to donate, and for the advancement of research. Therefore, the prospect of permitting donation and storage for future research should be explored to augment the pool of available eggs for both current and future research."

With the number of eggs in [storage](#) accumulating rapidly, but very few patients relinquishing their stored eggs, new strategies for the management of frozen eggs may be required to deal with the increasing demands on facilities.

Professor Rombauts hopes with the right information and support more women will decide to donate their eggs to others or to research projects such as mitoHOPE.

More information: Molly Johnston et al, Storage trends, usage and disposition outcomes following egg freezing, *Reproductive BioMedicine Online* (2023). [DOI: 10.1016/j.rbmo.2023.103728](https://doi.org/10.1016/j.rbmo.2023.103728)

Provided by Monash University

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