

NHSEED - - Economic Study or Review

# Interval versus constant-load exercise training in adults with Cystic Fibrosis.

**Code:** PM33618051    **Year:** 2021    **Date:** 2010

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## Study design (if review, criteria of inclusion for studies)

Cost-benefit analysis

## Participants

CF carrier-couples

## Interventions

IVF with preimplantation genetic diagnosis (PGD)

## Outcome measures

The amount spent to deliver healthy children for all CF carrier-couples by IVF-PGD was compared with the average annual and lifetime direct medical costs per CF patient avoided.

## Main results

Treating annually about 4000 CF carrier-couples with IVF-PGD would result in 3715 deliveries of non-affected children at a cost of \$57,467 per baby. Because the average annual direct medical cost per CF patient was \$63,127 and life expectancy is 37 years, savings would be \$2.3 million per patient and \$2.2 billion for all new CF patients annually in lifetime treatment costs. Cumulated net saving of an IVF-PGD program for all carrier-couples for 37 years would be \$33.3 billion. A total of 618,714 cumulative years of patients suffering because of CF and thousands of abortions could be prevented.

## Authors' conclusions

A national IVF-PGD program is a highly cost-effective novel modality of preventive medicine and would avoid most births of individuals affected with debilitating genetic disease.

<http://dx.doi.org/10.1016/j.resp.2021.103643>

## See also

Respir Physiol Neurobiol. 2021 Jun;288:103643. doi: 10.1016/j.resp.2021.103643. Epub 2021 Feb 19.

## Keywords

Preimplantation Genetic Diagnosis\_PGD; Prenatal Diagnosis; diagnostic procedures; non pharmacological intervention - diagn; Carrier Status; Heterozygote;