

Fact Sheet on Natural Cycles - a certified contraceptive app

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What is Natural Cycles?

Natural Cycles is a certified⁶ mobile application for contraception. The app is used by women in combination with a basal thermometer and protection on red days (or abstinence).

How does it work?

A woman measures her temperature under the tongue every morning, enters the temperature, as well as menstruation into the app and an algorithm informs the woman if she has a “red day” or a “green day”, depending on whether there is a risk of pregnancy. In order to prevent pregnancies, women are required to use protection (or abstain from sex) on red days.

Users with fairly regular cycles, who enter temperature data 5 times or more per week, can expect to reach around 60% green days/ cycle after 3 months of usage (i.e. no need for protection on these days). Note that the fraction of red & green days can affect user satisfaction and ultimately discontinuation rates.

The following factors may increase the number of red days:

- Having recently quit hormonal contraception
- Highly irregular cycles
- Atypical fluctuating temperatures⁷

What studies have been conducted and how effective is Natural Cycles?

Several clinical studies have been conducted to evaluate the efficacy of the app in contraception. They have shown that Natural Cycles, when used for contraception, improves the efficacy of traditional natural family planning. No randomized studies have compared the effectiveness of the oral contraceptive pill to that of Natural Cycles.

Typical use efficacy rate: 93%

The app has a typical use failure rate of 6.8, which means that in total 6.8 women out of 100 may get pregnant during one year of use due to all possible reasons (e.g. wrong attributed green days, having unprotected intercourse on red days and failure of the contraceptive method used on red days). This can be compared to a typical use failure rate of 9 women out of 100 reported for the Pill⁸.

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⁷ E.g. due to medical conditions (thyroid) or lifestyle (irregular sleep (+/- 2 hours than normal), use of certain medication, hangover from extensive alcohol consumption, insomnia, smoking or drugs, an infection or feeling ill, or working a night shift.

⁸ Trussell J. Contraceptive failure in the United States. *Contraception*. 2011;83(5):397-404

Perfect use efficacy rate: 99%

The app has a perfect use failure rate of 1.0, which means that 1 out of 100 women who use the app for one year and who become pregnant will do so either due to:

- A. Unprotected intercourse on a green day that was falsely attributed as non-fertile (i.e., method failure); or
- B. Protected intercourse on a red day, but the chosen method of contraception failed.

The perfect and typical use data is based on the result of a series of retrospective and prospective clinical studies on contraceptive effectiveness with 22'785 women using the app for 9.8 months. The results of these studies were published in peer-reviewed journals⁹.

Comparison to other, commonly used short-acting contraceptive methods¹⁰

Contraceptive Method	% of women experiencing an unintended pregnancy within the first year of use		% of women continuing use at one year
	Typical use	Perfect use	
Natural Cycles	7	1	50
Traditional ¹¹ fertility awareness-based methods	24	0.4-5	47
Male condom	18	2	43
Combined pill and progestin-only pill	9	0.3	67

The Natural Cycles typical use Pearl Index demonstrates an improvement to traditional natural family planning. This is likely due to the automated temperature chart analysis in the app and the removal of the manual charting and analysis process.

How safe is Natural Cycles?

There are no known side-effects or associated health risks from using this contraceptive method.

Who it is for?

A large group of women are looking for a more 'natural' approach to birth control and a way to better understand their body and menstrual and reproductive cycle. Natural Cycles increases contraceptive choice and may provide an effective option for these women. Women using Natural Cycles should be at least 18 years old.

Today the typical woman using Natural Cycles is 29 years old on average, has a daily routine and is in a stable relationship.

⁹ [1] EB Scherwitzl et al. European Journal of Contraception (2016), [2] EB Scherwitzl et al. Contraception (2017)

¹⁰ Trussell J. Contraceptive failure in the United States. Contraception. 2011;83(5):397-404

¹¹ Non-digital, without the help of a personalized algorithm

What are the benefits and drawbacks of using Natural Cycles?

Benefits	<ul style="list-style-type: none"> ● Safe and effective ● Meets women’s desire for a more ‘natural’ approach to contraception and a better way to understand their body and cycle ● No hormone-related side-effects ● Not invasive ● Provides personalized information on fertility ● Data can be used to facilitate conception when the woman’s desired outcome changes ● No restrictions related to religious beliefs ● May provide useful information and help the HCP diagnose underlying medical conditions
Drawbacks	<ul style="list-style-type: none"> ● Less effective than LARCs¹² ● Does not protect against sexually transmitted infections (STIs) ● Requires a daily routine of temperature measuring ● The couple must be willing to use protection (or abstain from sex) on red days ● Does not provide hormone-related benefits for diagnosed medical conditions, such as endometriosis and HMB¹³ or for bleeding management and cycle control

What certifications are required for medical app manufacturers?

The approval of contraceptive products is regulated in the vast majority of countries. If an app is intended to be used for contraception, it generally requires that the app manufacturers comply with regulations for medical devices. For example, it means that the product must have a valid CE certification in Europe and FDA certification in the US.

An EU Notified Body has certified Natural Cycles as a class IIb medical device intended for use as contraception. This puts the app in the same category as the condom. All CE certified manufacturers of medical devices are subject to assessments and audits performed in regular intervals by Notified Bodies in accordance with the European Directive 93/42/EEC on Medical Devices.

¹² Long-acting reversible contraception (e.g. intrauterine devices)

¹³ Heavy Menstrual Bleeding