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# WEBSITE DESIGN



#### Feature 09: Fertility Monitoring

From the Track My Health page, the user can select the Fertility Monitoring feature icon.

Upon selecting the Fertility Monitoring feature icon, the user will be

directed to the Fertility Monitoring page.

On the Fertility Monitoring page, the system will display a Graph button and a Table button, below the Track My Health and Fertility Monitoring sub-headers.

# GRAPH REPORT

If the user selects the Graph button, the user will see a Fertility Monitoring graph with an x-axis and a y-axis.

**TRỤC X:**

The x-axis will reflect the specific days, month and year of the data recordings, while the y-axis will show the user's temperature data. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

Within the graph, the user should see various fertility parameters. However, if there is no data to display within the graph, the system will show a notification that states "You have no data to graph." Nonetheless, if there is data to graph, then the system should display black dots in chronological order; from left to right. The black dotswill detail the user's previous ovulation date. The dark green dot will predict the user's next ovulation date.

The system will also display a light green line within the chart, which predicts the user's most fertile time. On the green line, the user will be able to see a dark green segment that represents the user's greatest opportunity to get pregnant (2 day window). Below the green lines, there will be a red line that details the temperature data over time. At the bottom of the graph, the user will be able to see triangles. The black triangle reflects the start of the user's previous period. On the other hand, the red triangle represents the predicted start of the user's next period.

An important function of this graph is the days, month, and year section. Below the graph, the user will only be able to view a certain number of days at a time (i.e. 6 days). The system will display a "<<" before the first day shown, as well as a ">>" after the last day shown. By selecting these arrows, the user can move backward, or forward, in time as they track their fertility data. Below the number of days, the user can also view the desired month and year related to their data via selecting the arrow tabs.

# TABLE REPORT

Aside from a graph, the user can select the Table format. With the table format, the system will display three sections of data; namely, a Fertility section, an Advance Prediction section, and a Statistics section. In the first section of data (Fertility Section), the user will see several columns to represent months in sequence (e.g. October, November, and December).

There will also be rows of information that relate to Start of period, Ovulation date, Most fertile time, and Most pregnant time. Under each month column, there will be several entry fields to reflect the data collected over time for each category. The user can change the monthly time frames by selecting the designated arrow tabs displayed before the first month, as well as after the last month listed.

Under the Advance Prediction section, the system will similarly display several columns to represent months in sequence. However, the rows of data will pertain to Startof next period, Next ovulation date, Next most fertile time, and Next most pregnant time. The user can also change the monthly time frames by selecting the designated arrow tabs displayed before the first month, as well as after the last month listed.

Below the Advance Prediction data, the system will display a Statistics section. In the Statistics section, there will be a list of several fertility statistical measures; such as Cycles tracked N (number of cycles tracked), Average cycle length, Cycle length variation, Average ovulation time, Longest cycle, and Shortest cycle. Next to each statistical measure, there will be data entry fields that will display the respective statistical data.

Below the graph/table section, the system will display a Diagnosis and Recommendations field. Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record. Click on the issue name for more in-depth information on that particular issue." By following the notification directions, the user will be able to retrieve details about their current diagnosis and previous diagnoses. It will also detail recommendations based on the diagnoses provided.

Beneath Diagnosis and Recommendations, there will be a Settings button and a Back to Track My Health button. If the user selects the Settings button, they will be directed to the Fertility Monitoring Settings page. However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

# Track My Health: Fertility Monitoring - Settings

On the Fertility Monitoring Settings page, the system will display a notification, under the Fertility Monitoring Settings sub-header, that states

**"This page displays the current settings of this feature."**

Below the notification, the user will be able to change the

**Input temperature setting** to

**Automatic or Manual.**

Please refer to the formula document for further details on any parameters, or measures, listed in this section.

Below the Fertility Monitoring settings, the user will see

Edit, Cancel, Save, and Back buttons.

If the user chooses to edit their settings, they will need to select the **Edit** button and make the desired changes.

Once the changes are made, the user will select the **Save** button so that the desired settings are saved.

However, if the user wants to **cancel** any changes, then they will select the Cancel button and no changes will be saved. The user can also select the Back button.

This will take them back to the Fertility Monitoring page.

# Fertility FORMULA

### Parameters

* Start of period: Users manually input.
* Cycle length:

Cycle\_length (*i*) = Start\_of\_period(*i*+1) – Start\_of\_period(*i*)

Where *i*: cycle #

* Maximum Temperature date: the date which has maximum temperature during one cycle.
* Mid-cycle date: the date at the middle of the cycle.
* Ovulation date:

**If abs**(Maximum\_Temperature\_date (*i*) – Mid-cycle\_date(*i*)) <=5

Ovulation\_date(*i*) = Maximum\_Temperature\_date(*i*)

**Else**

Ovulation\_date(*i*) = Mid-cycle\_date(*i*)

**End**

* Ovulation time: # of days from the start of one period to the next ovulation date

Ovulation\_time(*i*) = Ovulation\_date(*i*) - Start\_of\_period(*i*)

* Most fertile time: 5 days prior ovulation date and 2 days later.

Most\_fertile\_time\_start(*i*) = Ovulation\_date(*i*) - 5

Most\_fertile\_time\_end(*i*) = Ovulation\_date(*i*) + 1

* Most pregnant time: the day prior to and the day of ovulation

Most\_pregnant\_time\_start(*i*) = Ovulation\_date(*i*) - 1

Most\_pregnant\_time\_end(*i*) = Ovulation\_date(*i*)

### Statistics

* Cycles tracked N: # of cycles tracked
* Average cycle length
* Cycle length variation

Cycle\_length\_variation = sqr(standard\_deviation\_of\_cycle\_length)

* Average ovulation time
* Longest cycle
* Shortest cycle

### Advanced Prediction

Advance prediction should be done after 3 months of tracking.

* Prediction of start of next period

Start\_of\_next\_period = round(start\_of\_last\_period + Average\_cycle\_length)

* Prediction of next ovulation date

Next\_ovulation\_date = round(start\_of\_last\_period + Ovulation\_time)

* Prediction of next most fertile time

Next\_most\_fertile\_time\_start = Next\_ovulation\_date - 5

Next\_most\_fertile\_time\_end = Next\_ovulation\_date + 1

* Prediction of next most pregnant time

Next\_most\_pregnant\_time\_start = Next\_ovulation\_date - 1

Next\_most\_pregnant\_time\_end = Next\_ovulation\_date

### Help/Info

Information about fertile time: A woman‘s most fertile time spans about 6 days, starting approximately 5 days prior to ovulation, but there are only 2 days when you are most likely to become pregnant: the day prior to and the day of ovulation. Ovulation days can vary from cycle to cycle. A woman's body temperature only rises AFTER she has ovulated.

Tips for Taking Your Basal Body Temperature

* Begin taking your temperature on the first day of your period.
* Take it at about the same time every day, preferably before you get out of bed in the morning and before any activity.
* Don't do anything -- eat, drink, smoke, or even move around -- before you take your temperature.
* You can take your temperature however you want -- orally, at ear or armpit -- but make sure you use the same technique each time.
* Keep in mind that you will probably get some occasional freak readings -- either high or low temperatures -- that don't fit into the larger pattern. If they don't happen often, don't worry about them.
* You may want to have your doctor look at your chart to help you interpret it.