



# FEVERAPP DOCUMENTATION

DRAFT 2

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## 1. GENERAL APP DESCRIPTION

### 1.1. WHAT IS FEVERAPP

FeverApp is a mobile application, in which parents and caregivers can record, track and manage children's fever episodes and symptoms. In essence it is a fever and symptom management diary. Additionally, by providing scientific information based on current guidelines, FeverApp helps parents to understand fever better and manage fever safely and comfortably. It educates parents that fever is not a disease and it is a symptom. It also informs parents that the use of medications, especially antipyretics and antibiotics, are not necessary unless prescribed by doctors. Hence, an immediate visit to doctor or medication is not essential.

The App is a tool to document:

- a. Fever
- b. Illness
- c. Symptoms with or without fever
- d. Medication intake
- e. Acute infections such as Covid-19 and flu
- f. Measures taken by parents/caregivers to sooth the fever/illness
- g. Febrile seizures

### 1.2. WHAT FEVERAPP DOES

In overall, see FeverApp as a diary, substitute of pen and paper, in which users can write the time and date of their children's fever episodes, illnesses, medications and other measurements, vaccination dates, and other details.

FeverApp helps parents to have an overview of their children's fever episodes and diseases over time. In details, FeverApp:

- a. Can help parents to record:
  - Fever phases:
    - Temperature
    - Symptoms and diseases
    - Actions taken when the child is unwell (such as cloths on the forehead or hot-water bottle)
    - Vaccinations
  - Febrile seizures
- b. Tracks child's illness over time
- c. Provides information about:
  - Fever and fever management
  - Symptoms and warning signs related to fever
  - Current regulations (in Germany)
  - Scientific remedies instead of unnecessary medications
  - Information about emergency services
  - Information about febrile diseases in childhood
  - Information about medication dosages that are safe for each age group
  - Scientific literature

**Note: FeverApp is not a tool for body temperature measurement.**

### 1.3. PLATFORM

FeverApp is available in Appstore (requires iOS 11.0 or later) and Google Play (Android versions above 4.4). Currently it is available for smart phones and compatible with iPad and iPad touch.

### 1.4. FEE

FeverApp is completely free. There is no in-App purchases.

### 1.5. AUDIENCE

This App is intended as a fever documentation of children, however it can be used for adults as well.

Each family receives an individual family code (from their pediatrician) and with each family code, unlimited profiles can be created. That means each kid can have a separate profile within a family.

There is no limitation for the number of parents/caregivers to use the same family code. All the members can use the same family code to access the same profiles.

### 1.6. PURPOSE

As fever is a common symptom and it is mainly mismanaged, FeverApp intends to help and educate parents and caregivers to manage fever safely and comfortably.

In sum, FeverApp's purposes are:

- a. To assess and increase parents' confidence and compliance with guidelines for treating fever, and to reduce the excessive use of antipyretic, antibiotics and healthcare providers:

A massive number of research has shown that there is an unnecessary overuse of antipyretics and antibiotics when children are unwell, especially when they have fever. This App wants to help parents to know that medication should not be the first measure unless it is necessary and prescribed by their doctors. In this regard, FeverApp provides home remedies (based on scientific information and current regulations) for different situations and symptoms.

- b. Research:

As mentioned in onboarding and accepted by the user (see [functionality](#)), the data registered by users within the app will be used for a study under direction of Prof. Dr. med. David Martin and in correspondence with Witten/Herdecke University. The primary objective of the study is to assess and increase parental confidence and guideline adherence and reduce overuse of antipyretics, antibiotics and healthcare providers (see [Funding/Sponser](#)).

### 1.7. DEFINITION / DICTIONARY

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#### FEVER PHASE:

A fever phase is a period that the child is unwell and has fever. It starts by the first day that the parent enters the first entry (records that the child has fever) and it ends when the parent clicks on "child healthy".

**NOTE:** Only for statistical purposes in the study: if there is no new entry in an open fever phase for 48 hours, the phase will be automatically closed in our system. In this way, we can use the recorded fever phase in our study. However, the phase within the app (where it is visible to the user) will be still open.

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**CHILD HEALTHY:**

By clicking on this button, the parent confirms that the fever is over and the child is once again healthy and well.

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**DR. FEE:**

Dr. Fee is the guide and spokesperson in FeverApp. It shows the user all the functionalities and the way the app works. In recorded fever episodes, by clicking on Dr. Fee, the summary of that fever episode is accessible.

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**INFO LIBRARY:**

It is the place that all the literature and information is gathered. The user can here find many articles and information regarding fever, febrile illnesses, warning signs, etc.

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**LIST VIEW:**

Here is considered as the “home page”, where all the phases and functions can be accessed.

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**FAMILY CODE/KEY:**

It is the code that a pediatrician gives the user. When opening the app for the first time, the user is asked to enter this code. By having this code, a family can be sharing a single platform in their own devices. For example, the father and the mother of a family will have access to the same profile of their children.

## **1.8. FUNDING/SPONSER**

The FeverApp is an instrument of a register study on behalf of the Federal Ministry of Education and Research (BMBF) under the direction of pediatrician Prof. Dr. med. David Martin from the University of Witten/Herdecke.

## **2. FEATURES**

### **2.1. PROFILE**

There are two sets of profile in FeverApp:

**a. Parent/caregiver profile (Role):**

This is the profile for the parent who is using the app and entering the information. This profile is available for view/edit in menu.

Here the number of entries, number of fever phases, last activity time and number of registered medications as statistic are shown.

**b. Child profile**

The user can create one profile for each child within the family and distinguish them by different colors for each profile.

The user can choose any of the profiles by clicking on the names in list view. By doing so, a list of the created profiles will be presented, where the user can edit/delete the profiles or create a new one.

## 2.2. ALARM CLOCK

Here users have the option to set a reminder to measure the child's temperature. They can turn on the automatic reminder to frequency from every hour to every 5 hours. They also can set a time frame for the reminder. For example, every 2 hours from 07:00 to 23:00.

## 2.3. RECORD ILLNESS/FEVER AND MEDICATION

The user can record:

- a. Fever phases, which means recording the date and time when the fever starts in a child, and it continues till the last entry that the child is healthy again and the parent click on "child healthy".
- b. Illnesses that is their doctor's diagnoses.
- c. Medication: the user is asked if the doctor has prescribed any antibiotic and/or antipyretics.
- d. Vaccinations date and related symptoms afterwards.
- e. Time of: temperature measurements, medicine and other measurements, doctor visits, etc.

## 2.4. SCANNING MEDICATION

Here the parents/caregivers can whether:

- a. Scan the barcode of the medication or
- b. Search the name/PPN (Pharmacy Product Number) of the medication and select it in the list

Once the medication is chosen, the user can click on it and enter more details, that is, quantity, reason, date and time.

## 2.5. GRAPH VIEW

In the graph view, the course of child's temperature and its wellbeing and the occurrence of certain symptoms at any time is accessible.

Here the user can choose the fever phases to see on the graph. The graph can be moved by swiping right and left.

## 2.6. INFO LIBRARY

This is a small library within the app consisting of tips and articles about fever and topics related to fever.

## 2.7. LANGUAGES

Currently the app is in three languages:

- German
- English
- Russian

## 2.8. SUMMARY AND TIPS

Every time that the user records a fever episode, by answering the questions, when they clicking "Done" and save the entry, a summary of the answered questions will appear. Below each category a short explanation and a suggestion is represented. In cases that are considered risky (such as very high temperature or the

existence of warning signs) the user is advised to contact a doctor immediately. In non-emergency cases, a home remedy or some tips are suggested.

## 2.9. NIGHT MODE

The app has two modes of

- a. Normal and
- b. Night mode, in which the background turns dark and the words become light.

The user can freely choose any mode at any time.

## 2.10. EDUCATIVE VIDEOS

Within the app, the user has access to videos, in which the user can learn about fever and the ways they can comfortably manage fever in children.

## 3. FUNCTIONALITY

Once the user downloads the app, they are welcomed and it is explained that the app has a research purpose, which is to help the user to deal with fever. By clicking “Next” the user will be asked to watch a 4 minutes video that is a summary of the most important aspects of fever and how to handle it. After the video, in the Data protection page, it is explained that this application is an instrument for a study and the collected data will be used for it. The user is informed about the aims of the study and the ways that the data is collected. It is noteworthy to mention that although the family code is personally identifying, but the data will be accessed and managed only by Prof. Dr. med. David Martin and his team.

The participation in the study is completely voluntary and the user can at any time withdraw from the study. They can request the team to delete their data at any time by contacting them (via phone or email). It is advised that parents ask their children’s consent above 13 years old before using the app. At the end of Data protection page, the user has to accept and mark the box at the bottom of the page after reading the data protection. Without marking this box, they cannot go to the next step.

Then, the user is informed that ONLY they are responsible for using the app. FeverApp does NOT give individual advice and all the information within the app is only recommendations. By clicking on “All right”, the user accepts the disclaimer and proceeds to the next page, where Dr. Fee introduces herself as the guide in the app. Once the user clicks on “accept”, they will go to the login page.

In the login page, the user enters their family code and then select their role in their family (such as, mother, father, Grandmother).

After log in, the user will create their own profile (Role) by answering several questions. The user can choose not to answer the questions. However, it is explained that by answering them they will be helping the study. The first questions are about their year of birth and their education level, as it is an important factor for the study. Next they choose their nationality. Then, they enter their postal code. Now the user’s profile (the role) is set and they can choose to turn on their push notifications. Next step is creating a profile for a family member, e.g. their child (the rest of this document will address this example).

The first steps in creating a profile for their child are writing its name and choose their date of birth and gender. Then they will provide information if their child has any chronic diseases (here onwards the questions are optional for the user to answer). Then, they will enter the height and weight of their child. In the next pages, they will mention that how often their child gets a feverish illness, if the child tends to have temperature higher than 40 °C , how long the fever episodes typically last and finally if the child has taken any antipyretics in the last 12 months.

The user has the opportunity to choose a different color for each profile (out of 6 different colors) and then save the profile.

Once the profile is created, Dr. Fee educates the user about the app's functions by a quick tour. The app is ready for the first entry.

While creating the first entry, Dr. Fee explains that the user is free to answer all the questions (that will last between 2-4 minutes) or answer the questions selectively.

Notes:

- Social Integration and geolocation: The app does not use any of these as the log in is only by using an individual family code.

#### 4. CONTACT & MORE INFORMATION

Main website: <https://www.feverapp.de/>

**Contact & support:**

Via website: <https://www.feverapp.de/kontakt>

Phone: +49 2302 926 38080

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