

# FULL-FEATURED FIRST AID APP

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## Abstract

This programme is effectively organised for rapid searching and features 75 subjects split into 3 sections. There are descriptions, images, symptoms, and dos and don'ts for each topic. Each piece of information will be evaluated by the doctor. The complete emergency service also allows you to look up hospitals if you have a data or internet connection. The design of Comprehensive First Aid is incredibly good and appealing. The UI is simple with recognisable buttons, and the UX is quite simple to comprehend.

The tool's aim is to assist untrained healthcare personnel in giving first aid to patients who cannot reach a medical facility quickly or do not have access to one. The application directs the diagnostic process and therapy, and the tool's goal is to provide assistance without requiring the user to divulge diagnostic information. You may instantly access movies, interactive quizzes, and straightforward step-by-step instructions to help you keep up your lifesaving abilities and react when necessary when you download the app to your smartphone or tablet.

**Keywords:** Rapid searching, Symptoms, personnel, UX, UI, Diagnostic information.

## 1. Introduction

In today's world, technology plays a major part in every sector of society, including our personal lives. More lives have benefited from technology. Human medicine and health sciences have improved. This research has led to the development of new approaches that have contributed in the treatment of the most difficult human ailments. It also has helped in saving so many lives and it has also enhance the human lifespan. This can be proved by saving very countless number of lives all around the world .

The Complete First Aid app is the simplest way to learn crucial first aid information. It comprises both simplicity and complexity. Comprehensive First Aid generates complex data and presents it to the user as though it were incredibly simple. It is an Android application that makes the most of Java activities and XML layout. It contains topics that are not specific to any one region but rather were assembled with a global readership in mind. A doctor evaluates each of the contents. You don't need to be a medical expert, have medical training, or be first aid expert to use this software; all you need is 49.61 MB of free space on your phone and the desire to save someone's life.

## 2. Literature Survey

A first aid software dramatically increased the knowledge and skills of healthcare personnel in handling emergencies, according to a study by Huang et al. (2020). A mobile app created for school students increased their first aid knowledge and self-efficacy, according to another study by Zhou et al. (2020).

Moreover, first aid apps have been found to be useful in promoting public health outcomes. For example, a study conducted by Bierens et al. (2017) found that a first aid app promoted bystander CPR and improved survival rates among cardiac arrest patients. Another study by Semeraro et al. (2017) found that a first aid app improved the quality of chest compressions performed during CPR.

First aid applications do, however, have certain drawbacks, including a poor user experience, a lack of engagement, and inadequate content, according to some research. For example, a study by Weng et al. (2019) discovered that several first aid applications were missing crucial details, like the location of neighbouring hospitals.

## 3. Existing Systems

There are many apps on the Play Store that provide first aid knowledge, but none are as effective as the Total First Aid application. None of the information is covered. Current apps lack user-friendly interfaces and engaging UX. None of the apps have built-in GPS-enabled mapping capabilities.

**4. Methodology**

**A. Medical Emergency:**

This menu contains medical conditions that are caused by internal body functions and are unrelated to external stimuli. It has certain topics, which are listed below:

- i. Wheezing
- ii. Chok
- iii. Croup
- iv. Delivery
- v. Diabetes
- vi. Heart Attack
- vii. High BP
- viii. Hypothermia
- ix. Low BP
- x. Nose Bleed
- xi. Seizure
- xii. Stroke
- xiii. Unconscious

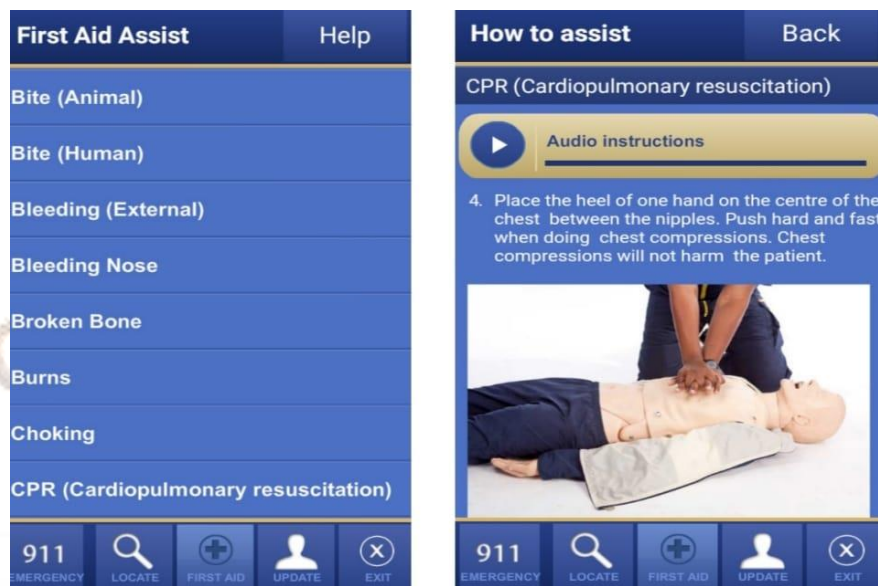


FIGURE 1: CPR METHOD

**B. Accident & Other Injuries:**

In this menu, the physical impacts that resulted from external events are grouped together. It has 26 topics, which are listed below:

- i. Amputation
- ii. Bleeding
- iii. Bullet Wound
- iv. Burn Major
- v. Burn Minor
- vi. Chemical Attack
- vii. Concussion
- viii. Dental Injury
- ix. Eye Injury
- x. Fracture
- xi. Frost Bite
- xii. Heat Cramp
- xiii. Water Drowned
- xiv. Joint Dislocation
- xv. Nail Injury
- xvi. Nose Injury
- xvii. Puncture Wound
- xviii. Radiation Attack
- xix. Road Rash
- xx. Spinal Injury
- xxi. Splinter
- xxii. Sprain
- xxiii. Stab
- xxiv. Strain
- xxv. Sun Burn
- xxvi. Tick Removal

**C. Bites & Poisons:**

The consequences of venom caused by the sting, bite, or consumption of dangerous substances are grouped together in this menu. It has 32 topics which are listed below:

- i. Ant
- ii. Aquatic Stings
- iii. Bed Bug
- iv. Bee
- v. Caterpillar
- vi. Centipede

- vii. Dog
- viii. Fly
- ix. Frog
- x. Human
- xi. Scorpion
- xii. Snake
- xiii. Spider Tick
- xiv. Wasp
- xv. Agriculture
- xvi. Alcohol
- xvii. Bath Salt
- xviii. Button Battery
- xix. Carbon Monoxide
- xx. Cyanide
- xxi. Drug
- xxii. E Cigarette
- xxiii. Food
- xxiv. Glow Stick
- xxv. Heavy Metal
- xxvi. Hydro Carbon
- xxvii. Inhalants
- xxviii. Moth Ball
- xxix. Mushroom
- xxx. Tetrodotoxin
- xxxi. Nicotine D



FIGURE 2:BITES

**D. Search Hospital:**

Here, you can simply check up the location of the closest hospital using a map. The user is instructed to immediately turn on the wifi, which already has been switched on. In addition, the user is instructed to enable location access within this option. User may easily find a route by dragging and pinching.

GPS aids the user in determining his present location.

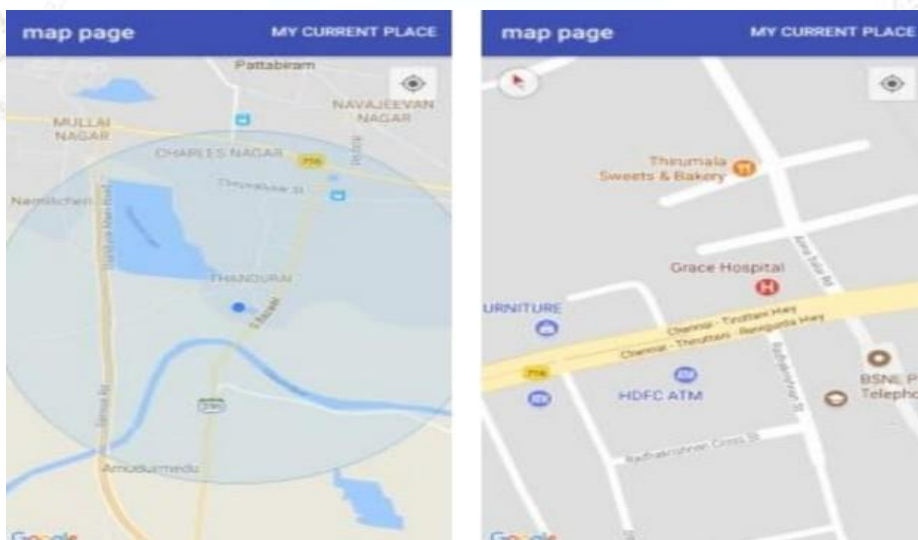


FIGURE 3.NEARBY HOSPITALS



## 5. Future Enhancement

After the release of this software, a sequel with extra features called "Complete First Aid Plus" will be available.

Customers will be given recommendations for the nearby hospitals in that follow-up. In addition, other subjects will be covered. Afterwards, Complete First Aid Lite and Complete First Aid 2 editions of this app will be made obtainable. The latter will be a fresh attempt to teach first aid material graphically, while the former will focus on web programmes with extremely little disc consumption less than 6 MB. All of these apps will be published to the Play Store and made available to everyone for free.

## 6. Conclusion

With a total installation reaching 100,000, this application will surely draw a user base of at least 5000 individuals. Even one life saved anywhere in the globe will help people everywhere as a result of this.

If funding is provided and there is enough money, this app might be exposed to a larger audience, which would help with a more efficient rollout. This software might also be used as a marketing tool to promote first aid supplies, ambulance services, trainings, etc., depending on the sponsorship being offered. Beyond achieving commercial success, our app's main objective is to save at least one life.

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