HealthConnect User Manual

Product Name: HealthConnect - Personalized Preventive Healthcare App

Type/Code: Mobile Application (iOS/Android)

Trade Name: HealthConnect™

Technical Specifications

- **Platform Compatibility**: iOS 14.0+ / Android 10.0+
- **Device Compatibility**: Smartphones, tablets, and smartwatches (e.g., Fitbit, Apple Watch)
- **Required Permissions**: Health sensors, GPS, notifications, camera (for telehealth calls)
- **Storage Requirements**: Minimum 200 MB
- **Connectivity**: Wi-Fi or mobile data required for syncing, telehealth, and EHR integration

Relation to Other Documents

This manual should be read alongside the following:

- HealthConnect Privacy Policy
- Terms of Use Agreement
- API Integration Guide (for EHR, insurance, and wearable devices)

Contents

1. Introduction

HealthConnect is a preventative care application developed for those who would like to take ownership of their health. This document will provide information on installation, use, and customization of the app. It is intended for everyday users, health-oriented users, or users managing a chronic condition.

The app integrates with IoT hardware for real-time monitoring of vital signs such as heart rate, blood pressure, temperature, and oxygen saturation. It uses AI to provide personalized recommendations, aiming to prevent illnesses rather than react to them.

2. Safety and Privacy Guidelines

General Safety Prescriptions

- **Privacy**: Do not share your login information and utilize biometric privacy options if they are available. All data is encrypted and compliant with HIPAA standards.
- **Emergency Care**: HealthConnect is not designed to address medical questions or emergencies. Please consult your healthcare providers for urgent issues/questions. In case of emergency, call local emergency services.
- **Responsible Use**: Only provide information to the extent necessary and follow the medical advice of licensed and qualified healthcare professionals. Do not rely solely on the app for medical decisions.
- **Hardware Safety**: Ensure wearables are used as per manufacturer guidelines. Avoid using damaged sensors or devices.

Privacy Features

- Data is stored securely in the cloud with hardware encryption via TPM chips.
- Users can control data sharing with EHR systems or insurance providers.
- Secure boot procedures and BLE communication protect against unauthorized access.

3. Product Overview

Composition

- A mobile application available on iOS and Android.
- Cloud-based storage for user health data.
- APIs for integration with wearable devices (e.g., Fitbit, Apple Watch) and EHR systems.

Core Functionality

HealthConnect monitors health metrics and chronic conditions, records OTC medications, reminds you about preventive care, and connects you to telehealth visits. It employs AI to provide personal health recommendations aimed at primary illness prevention.

Key Differentiator

Unlike reactive health apps, HealthConnect focuses on proactive prevention through AI insights, reducing unnecessary hospitalizations and promoting healthier lifestyles.

System Architecture

- **Perception Layer**: Wearable sensors (Arduino/ESP8266-based) collect data wirelessly.
- **Network Layer**: Edge nodes (Raspberry Pi) preprocess data to minimize latency.
- **Application Layer**: Cloud servers (Intel i7/AMD processors, 1TB storage) handle analysis and storage.

4. Installation & Setup Instructions

1. **Download the App**: Search for "HealthConnect" in the App Store (iOS) or Google Play (Android) and download it.
2. **Register an Account**: Open the app and sign up using your email or single sign-on (Google/Apple ID).
3. **Accept Policies**: Review and accept the Privacy Policy and Terms of Use.
4. **Grant Permissions**: Allow access to health sensors, GPS, notifications, and camera/microphone for telehealth.
5. **Sync Wearable Device (Optional)**: Pair your smartwatch or wearable via Bluetooth Low Energy (BLE) to enable automatic data syncing.
6. **Initial Setup**: Set up your profile with basic health info (age, conditions) for personalized AI recommendations.

If issues arise, refer to Troubleshooting section.

5. Navigation and User Interface

The app features an intuitive interface with a bottom navigation bar for easy access.

Menu Bar Icons

- **Metrics**: View real-time health data dashboards.
- **Alerts**: Access AI-generated preventive notifications.
- **Telehealth**: Schedule and join video appointments.
- **Medication**: Track OTC drugs and interactions.
- **Lifestyle Tips**: Get personalized diet, exercise, and stress management advice.

User Interface Elements

- **Dashboard**: Central hub with customizable widgets for vital signs.
- **Profile**: Edit personal details, goals, and integrations.
- **Notifications**: Push alerts for checkups, medication reminders, or anomalies.

The design uses calming blues (#007bff) and greens (#28a745) for a trustworthy feel, with high-contrast text for accessibility.

6. Core Features & How to Use Them

Health Information Monitoring

- Track steps, heart rate, sleep, blood pressure, temperature, and oxygen saturation.

- **How to Use**: Navigate to Metrics; data auto-syncs from wearables. View trends over time with charts.

Preventive Care Alerts

- AI-generated reminders for screenings, checkups, and healthy behaviors.
- **How to Use**: Check Alerts tab; tap to view details or dismiss. Customize alert frequency in settings.

Telehealth Appointments

- Schedule video calls with registered providers.
- **How to Use**: Go to Telehealth; select provider, date/time, and confirm. Ensure camera/microphone permissions are granted.

OTC Medication Tracking

- Log over-the-counter medications and receive safety alerts for interactions.
- **How to Use**: In Medication tab, add drugs via search or scan; view history and reminders.

Lifestyle Guidance

- Personalized recommendations for diet, exercise, or stress management based on data.
- **How to Use**: Access Lifestyle Tips; set goals (e.g., 10,000 steps) and track progress.

All features integrate with hardware for accuracy, using protocols like MQTT for efficient data transfer.

7. Customization Options

Users can personalize the app for better experience:

- **Notifications**: Enable/disable push notifications for alerts and reminders.
- **Health Metrics**: Choose which vitals to display on the dashboard (e.g., prioritize heart rate).
- **Integrations**: Link insurance or EHR accounts for seamless data sharing.
- **Goals**: Set personal health targets, like daily steps or sleep hours, with progress tracking.
- **Themes**: Switch to dark mode for low-light viewing.
- **Data Export**: Download reports in PDF/CSV for sharing with doctors.

Access these via the Profile > Settings menu.

8. Troubleshooting & FAQs

Common Issues

- **App Not Syncing?**: Check internet connection and reconnect wearable in settings. Ensure BLE is enabled.
- **Forgot Password?**: Tap "Reset Password" on the login screen and follow email instructions.
- **Telehealth Not Working?**: Verify camera/microphone permissions in device settings; test with a sample call.
- **No Alerts Received?**: Ensure notifications are enabled and profile data is complete for AI accuracy.
- **High Battery Drain?**: Limit background syncing or use low-power mode for wearables.

Advanced Troubleshooting

- Restart the app/device.
- Update to the latest app version.
- Clear cache via Settings > Storage.
- If hardware issues (e.g., sensor errors), check connections and battery levels on ESP8266/Arduino devices.

For unresolved issues, contact support.

9. Contact & Support

For technical help or medical concerns related to app use:

- **Email**: support@healthconnect.com
- **Phone**: +1-877-004-794 (available 9 AM - 5 PM EST, Mon-Fri)
- **Website**: Visit the Support section on healthconnect.com for live chat and knowledge base.
- **Feedback**: Submit suggestions via the app's Profile > Feedback form.

Version History

- Version 1.0 (October 19, 2025): Initial release with core features and IoT integration.