

## **1. WHAT TO TRACK (Core + Advanced Metrics)**

Below is a full list of **clinically useful** and **lived-experience-validated** metrics for menopause. Each item includes *why it's valuable*.

### **A. Daily Core Metrics**

These should be the primary quick-entry items:

#### **1. Sleep**

- Duration
- Sleep quality (1–10 or emoji scale)
- Night sweats / sleep disturbances
- Bedtime + wake time

*Why?:* Sleep is one of the most affected areas during menopause and correlates with hormones, blood sugar, and stress.

#### **2. Food intake (meal logging)**

- Breakfast/lunch/dinner/snacks
- Optional: symptoms after specific foods

*Why?:* Blood sugar instability triggers anxiety, hot flashes, and insomnia.

#### **3. Water consumption**

- Total water intake
- Caffeine & alcohol tracking

*Why?:* Hydration affects headaches, flushing, fatigue, and blood pressure.

#### **4. Medications & supplements**

- HRT (estrogen, progesterone, testosterone)
- Thyroid meds
- Vitamins/minerals (D3, magnesium, iron, etc)
- Adherence reminders

*Why?:* Timing + consistency drastically changes symptom intensity.

#### **5. Energy levels**

- 1–10 scale OR 4 options (Energised / OK / Low / Crashed)

*Why?:* Energy fluctuations follow hormonal waves, stress, sleep changes, and nutrient levels.

#### **6. Physical & emotional symptoms**

Include:

- Hot flashes
- Night sweats

- Headaches
- Bloating
- Irritability
- Anxiety
- Brain fog
- Joint pain
- Libido changes
- Vaginal dryness
- Skin issues

*Why?:* Tracking patterns reveals triggers and improves doctor discussions.

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## 2. ADVANCED & HIGH-VALUE METRICS

These unlock *real insights* and differentiate the app.

### A. Hormone-related markers

Even if users don't have labs:

- Cycle days (for perimenopause)
- Spotting/bleeding patterns
- HRT dosage changes
- PMS-like symptoms

### B. Blood sugar-related symptoms

You can include:

- Post-meal energy crash
  - Cravings (sweet/salty/carby)
  - Jitteriness after caffeine
- Why?:* Blood glucose instability mimics menopause symptoms.

### C. Mood tracking

Instead of generic "sad/happy," use:

- Calm / frazzled
- Clear / foggy
- Connected / withdrawn

- Overwhelmed / steady  
*Why?:* These reflect lived menopausal emotional patterns better than standard mood logs.

#### D. Stress & nervous system

- Breathwork done?
- Meditation?
- Tension zones (shoulders/jaw/chest)

#### E. Sexual health

- Arousal
- Pain/discomfort levels
- Lubrication
- Partner connection  
*Why?:* Important but often underreported unless tracked privately.

#### F. Temperature and heart rate

If integrating with wearables:

- Night-time body temperature
- HRV
- Resting heart rate  
*Why?:* Strong indicators of hormonal shifts.

#### G. Digestive patterns

- Bloating
- Bowel movements (Bristol type)
- Food reactions  
*Why?:* Estrogen changes affect digestion significantly.

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### 3. DIFFERENT WAYS TO STRUCTURE THE APP

#### Approach A — "Daily Check-in" Design

Best for keeping user engagement high.

- Simple daily card with:
  - Sleep
  - Energy
  - Symptoms
  - Meals

- Water
- Mood
- Medications

Everything in one scrolling page with quick-tap options.

### **Approach B — Category Tabs**

Tabs like:

- Sleep
- Food
- Symptoms
- Mood
- Hydration
- Medication
- Insights

Better for users who want depth + detail.

### **Approach C — "Timeline" or "Feed"**

Chronological display of everything logged.

Pros: intuitive

Cons: harder to summarise patterns

### **Approach D — AI-Assisted Summaries**

This is where your app becomes **unique**.

AI can:

- Spot patterns (“You sleep worse after high-sugar dinners.”)
- Suggest adjustments (“Increase magnesium on tough days.”)
- Generate doctor-ready symptom reports

## **4. UNIQUE FEATURES YOU COULD ADD (DIFFERENTIATORS)**

### **1. Trigger Detection**

AI identifies relationships such as:

- Hot flashes spike after caffeine
- Anxiety increases after poor sleep
- Joint pain flares with low magnesium

- Night sweats increase when progesterone is low
- Energy drops with skipped meals

## 2. Doctor Report Generator

Exportable PDF summarizing:

- Symptoms trend
- Medication compliance
- Sleep data
- Food patterns
- Mood cycles

Perfect for GP or gynaecologist visits.

## 3. Supplement & Medication Scheduler

With reminders + streak tracking.

## 4. Education Layer

Bite-sized explanations:

- Why progesterone affects sleep
- Why estrogen crashes cause anxiety
- Foods that stabilize hormones

## 5. Community or “Shared Circle”

Optional shared support between friends or private groups.

## 6. Menopause Stages Mapping

AI determines whether user is:

- Early perimenopause
- Late perimenopause
- Menopause
- Postmenopause

Based on patterns, cycles, symptoms.

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## 5. TECH APPROACHES (SHORT VERSION)

### Frontend

- React Native (mobile)
- Flutter (mobile)

- React + PWA (web/mobile hybrid)

## Backend

- Supabase (auth, database, storage) — simple & perfect for this
- Firebase
- Node/Express with PostgreSQL

## Data Storage

### Best practice:

Store all timestamps in **UTC**.

Convert to user's timezone only when **displaying**.

### Database structure (example)

#### users

- id
- age, location
- menopause stage
- timezone

#### sleep\_logs

- id
- user\_id
- date (UTC)
- duration
- quality
- night\_sweats

#### food\_logs

- meal\_type
- description
- energy\_after\_meal

#### symptoms

- hot\_flashes (0–10)
- anxiety (0–10)
- brain\_fog (0–10)
- ...

#### medication\_logs

**hydration\_logs**

**mood\_logs**

**cycle\_logs**