



**Championing Hypertension
Remote Monitoring
for
Equity & Dissemination**

Table of Contents

Contents

a.	What is hypertension (high blood pressure)?	4
b.	What is CHARMED?	5
	Eligibility:.....	6
	CHARMED Website	6
c.	Meet the Team	7
d.	Quick Reminders	8
e.	Blood Pressure Monitor	9
f.	How to take Blood Pressure at home graphic.....	10
g.	Error Codes	11
h.	CareSimple Phone App.....	12
	Steps on how to review blood pressure readings:	12
i.	How to see CarePlan:	16
j.	Text Message Information	17
	Very Low or Very High Text Message Alerts.....	18
i.	Clinic Contact Information	20
j.	Blood Pressure Chart.....	23

a. What is hypertension (high blood pressure)?

Blood pressure is the result of two forces. The first force (**systolic blood pressure**) is when the blood pumps out of the heart and into the arteries. The second force (**diastolic blood pressure**) happens as the heart relaxes in between heartbeats. These two forces are represented on the blood pressure monitor as “**SYS**” for systolic and “**DIA**” for diastolic. We will review the normal and abnormal ranges for systolic and diastolic blood pressure at the end of this packet.

High blood pressure is also called **hypertension**. Having high blood pressure means that the force of your blood pushing against the walls of your blood vessels is **too high**. Sometimes high blood pressure does not have any symptoms you can see, which is why blood pressure monitors are a recommended tool. Having high blood pressure can lead to other serious health issues like a heart attack or a stroke.

(American Heart Association, 2024)

b. What is CHARMED?

CHARMED stands for Championing Hypertension Remote Monitoring for Equity & Dissemination. The goal of this study is to support patients with hypertension self-management using both home blood pressure monitors and digital messaging programs. The investigators will first engage patients with technology training to use home monitors, texting and mobile phone applications. Following that, investigators will assess the effectiveness of home blood pressure monitors and enhanced patient-clinician digital communication on blood pressure control during a 6-month intervention.

Eligibility:

You are eligible for this study because you meet the following criteria:

- Are an English and/or Spanish speaker.
- Have uncontrolled Hypertension ($\geq 140/90$ mmHg).
- Patient within Contra Costa Health Services (CCHS).
- Have seen primary care provider within the past 2 years.
- Are over the age of 18 years.

CHARMED Website

Scan QR code to see the CHARMED website:



c. Meet the Team

Study Coordinators:

- Jorge Larreynaga
- Maria Plascencia-Mooradian
- Sara Guzman-Estrada
- Monica Naranjo
- Isabel Luna
- Eric Li

Principal Investigators:

- Urmimala Sarkar, MD, Professor
UCSF Division of General Internal Medicine at ZSFG
- Courtney Lyles, PhD, Professor, Medicine: Public Health
Sciences at UC Davis

Study Contact:

- For assistance, please contact Faviola García at
faviola.garcia@ucsf.edu or 628-215-1173 (calls and texts
accepted)

d. Quick Reminders

1. A study coordinator will reach out individually to each participant to schedule an exit interview at the 6-month mark.
2. This blood pressure monitor should only be used by the participant in the study. Do not share the monitor with others while enrolled.
3. When taking your blood pressure place the monitor on a flat surface and do not move until the reading is complete.
4. Study text messages are automated. If you have questions regarding a warning message, please contact your clinic for further assistance.
5. Please be sure to read the daily messages you receive.

e. **Blood Pressure Monitor**

CareSimple®

See page 8 for
information on how
to properly take
your blood
pressure at home.



The CareSimple Blood Pressure (BP) Monitor provides an easy way to measure a patient's systolic and diastolic blood pressure.

Login Information for CareSimple App:

Username:

Password:

f. How to take Blood Pressure at home graphic

HOW TO TAKE BLOOD PRESSURE AT HOME

FOLLOW THESE STEPS TO OBTAIN AN ACCURATE BLOOD PRESSURE READING

1 PREPARE

- Avoid caffeine, cigarettes and other stimulants.
- Empty your bladder
- Find a **quiet place** where you can sit without distractions.
- If you take blood pressure medication, measure your blood pressure **before** taking the medication.

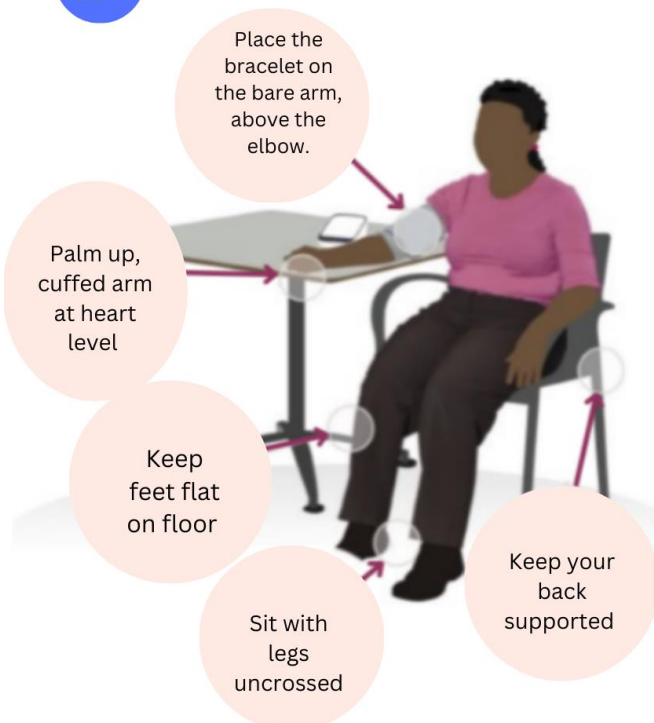


BLOOD PRESSURE
OVER 180/120 mm
Hg IS A CRISIS.

Wait a few minutes and take your blood pressure again. If it is still high, contact your doctor immediately.

[MORE INFORMATION ON
HEART.ORG/HBP](https://www.heart.org/hbp)

2 POSITION



3

REMINDERS

During test

- 1 Before testing, sit in position for 5 minutes
- 2 Sit quietly, avoid talking, TV, telephone and other devices
- 3 Take 2 or 3 measurements, one minute apart
- 4 Make sure measurements were recorded




g. Error Codes

Blood pressure error codes may pop up on your device and how to fix.

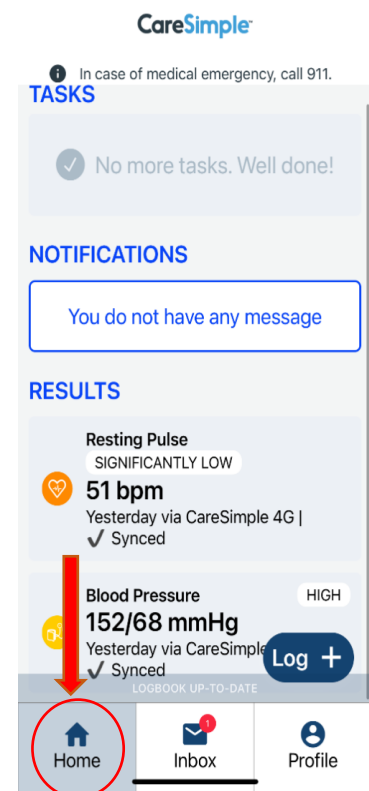
Error Code	Resolution
Er 1	Your device's batteries are low. Please replace them with 4 AA batteries.
Er 7	
Er 2	Your measurement was interrupted due to movement. Avoid moving or talking while taking a measurement
Er 4	Your device cannot connect to the cellular network. Try moving to a new location, upstairs or near a window.
Er 5	
Er 6	
Er 20	Plug the cuff tube all the way into the device and make sure that there is no air gap. You can also remove and re-insert it to fix the problem.
Er 22	

h. CareSimple Phone App

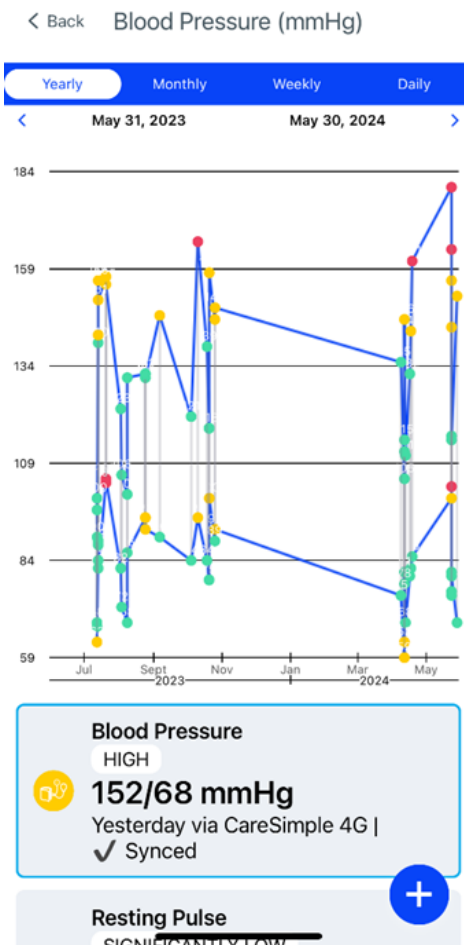
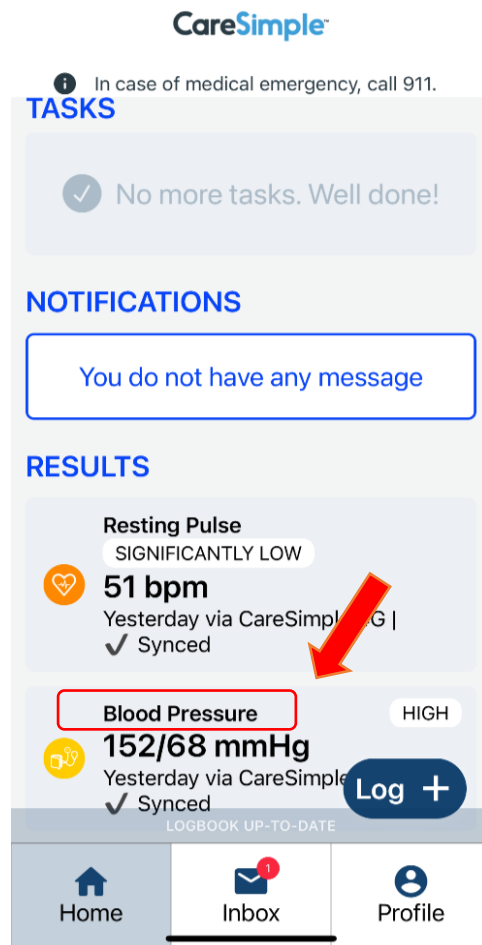
Steps on how to review blood pressure readings:

1. Open the “CareSimple” app  on your phone or tablet.

2. Press “**Home**” to review your most recent blood pressure measurement. On the right, each measurement will show if your reading was: **Very Low**, **Low**, **Normal**, **High**, or **Very High**

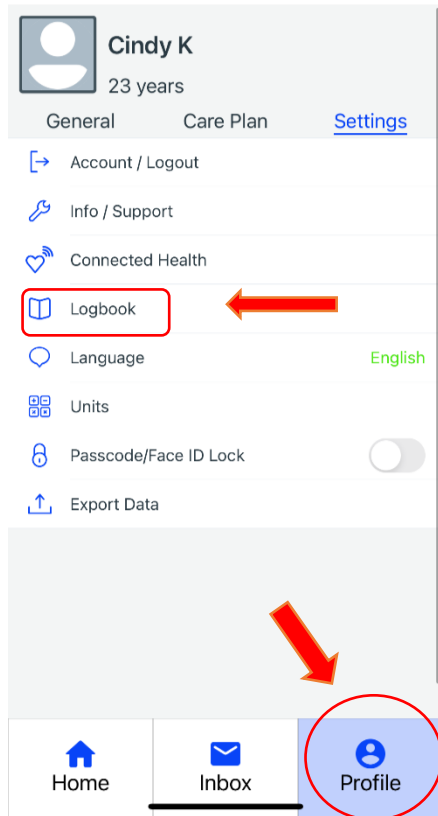


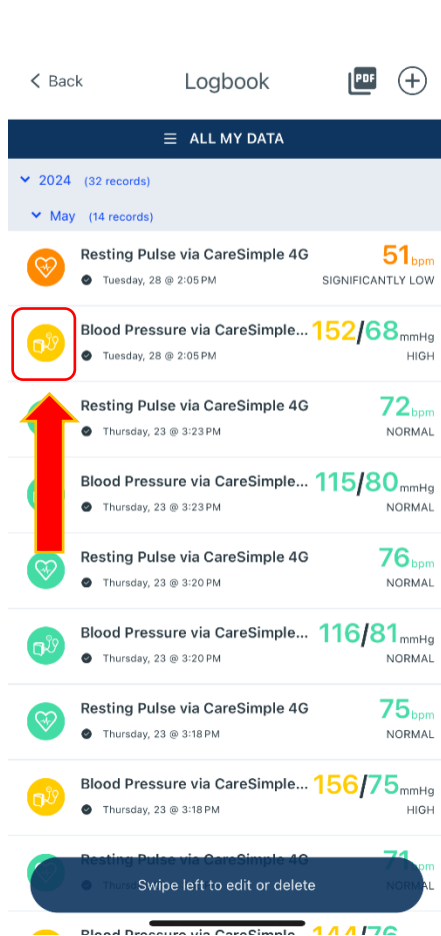
3. Select the “**Blood Pressure**” measurement to view a graph of your blood pressure measurements for the past year, month, week or day.



4. Open your Profile on the bottom right-hand corner, go to “Settings” and select “Logbook” to review all your past measurement data, color coded based on the range of the measurement.
5. Tap on the color-coded circle icon of the measurement data, to view the range of your blood pressure.

Profile



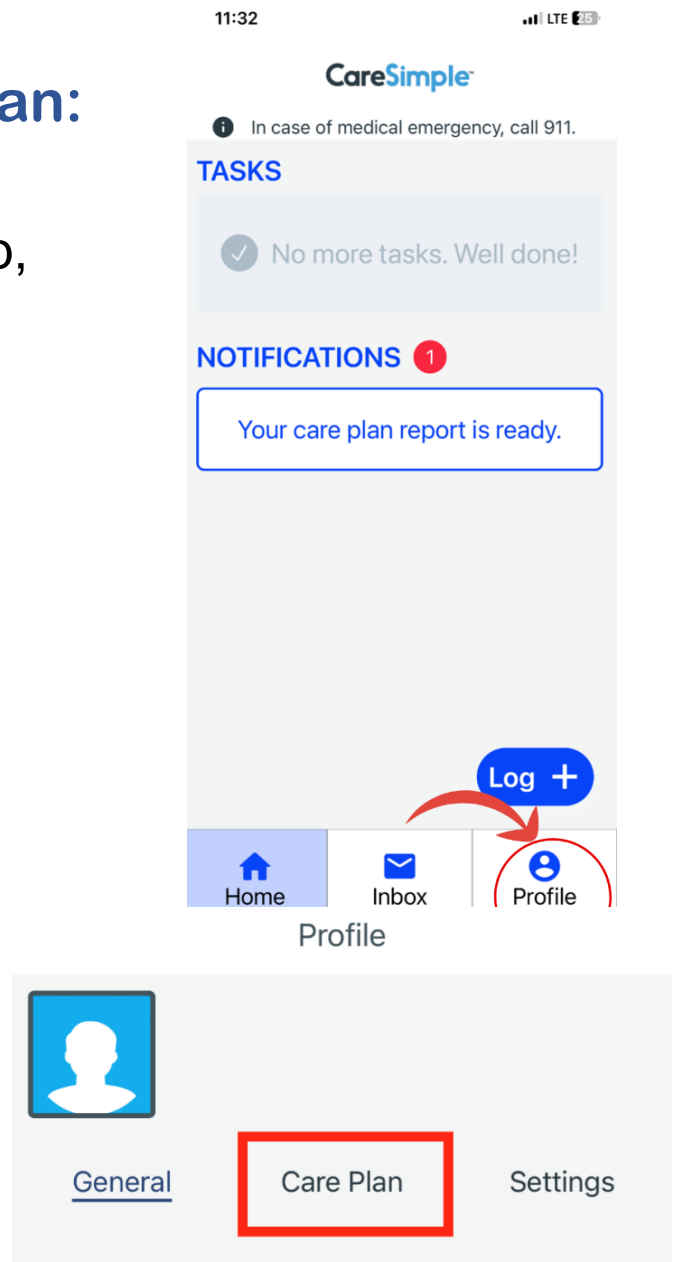


i. How to see CarePlan:

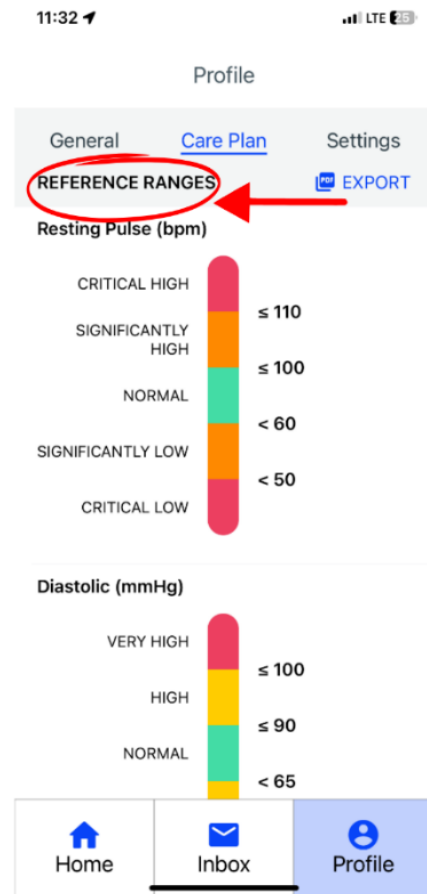
1. In the CareSimple app, click on “**Profile**”

2. Click on “**Care Plan**”.
Here, you will be able to see the Care Plan that was created for you.

3. Click on “**Reference Ranges**” to view the range for the blood pressure measurements.



Blood pressure readings are seen according to colors.
Categories: **Very High, High, Normal, Low, and Very Low.**

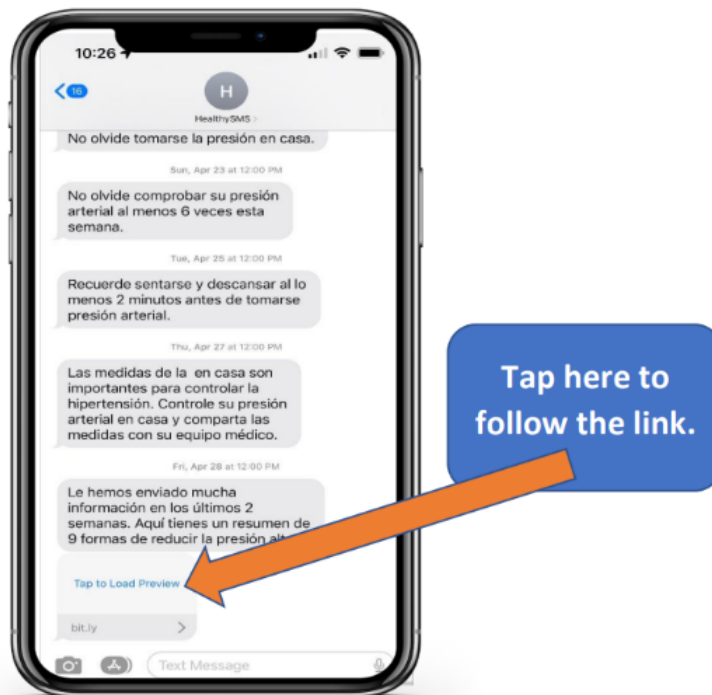


j. Text Message Information

- You will receive text messages throughout your study enrollment. All participants will receive

messages from the following number: (855) 604-7960

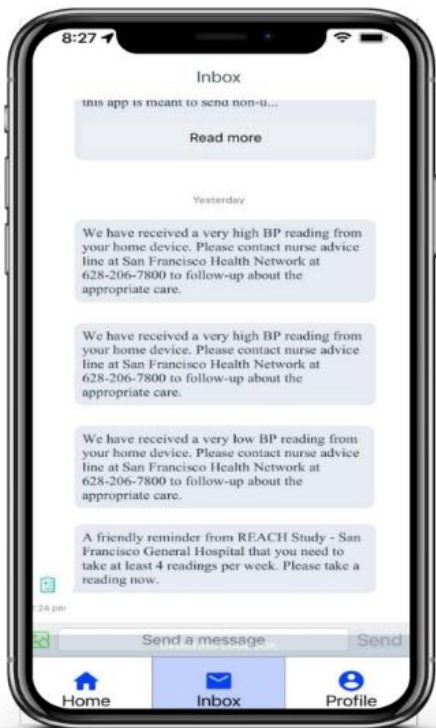
- Take your blood pressure at least **6** times during the week.
- Remember these are automated text messages.
- Text messages will have links. See example below:



Very Low or Very High Text Message Alerts

If a blood pressure reading you take at home is considered Very Low or Very High (see **pages 21 & 22** for ranges and their categorization), you will receive a message from the CareSimple app.

See an example below:



i. Clinic Contact Information

If you have questions regarding a **very low or very high blood pressure** message, please contact your clinic for further assistance.

Contra Costa Health Services:

Clinic	Phone Number
West County Health	(510) 231-9400
North Richmond Center for Health	(510) 231-1350
Pittsburg Health Center	(925) 431-2300
Martinez Health Center	(877) 905-4545
Concord Health Center and CHC2	(925) 681-4100
Antioch Health Center	(925) 608-8500
Bay Point Family Health Center	(877) 905-4545
Brentwood Health Center	(877) 905-4545
Miller Wellness Center	(877) 905-4545

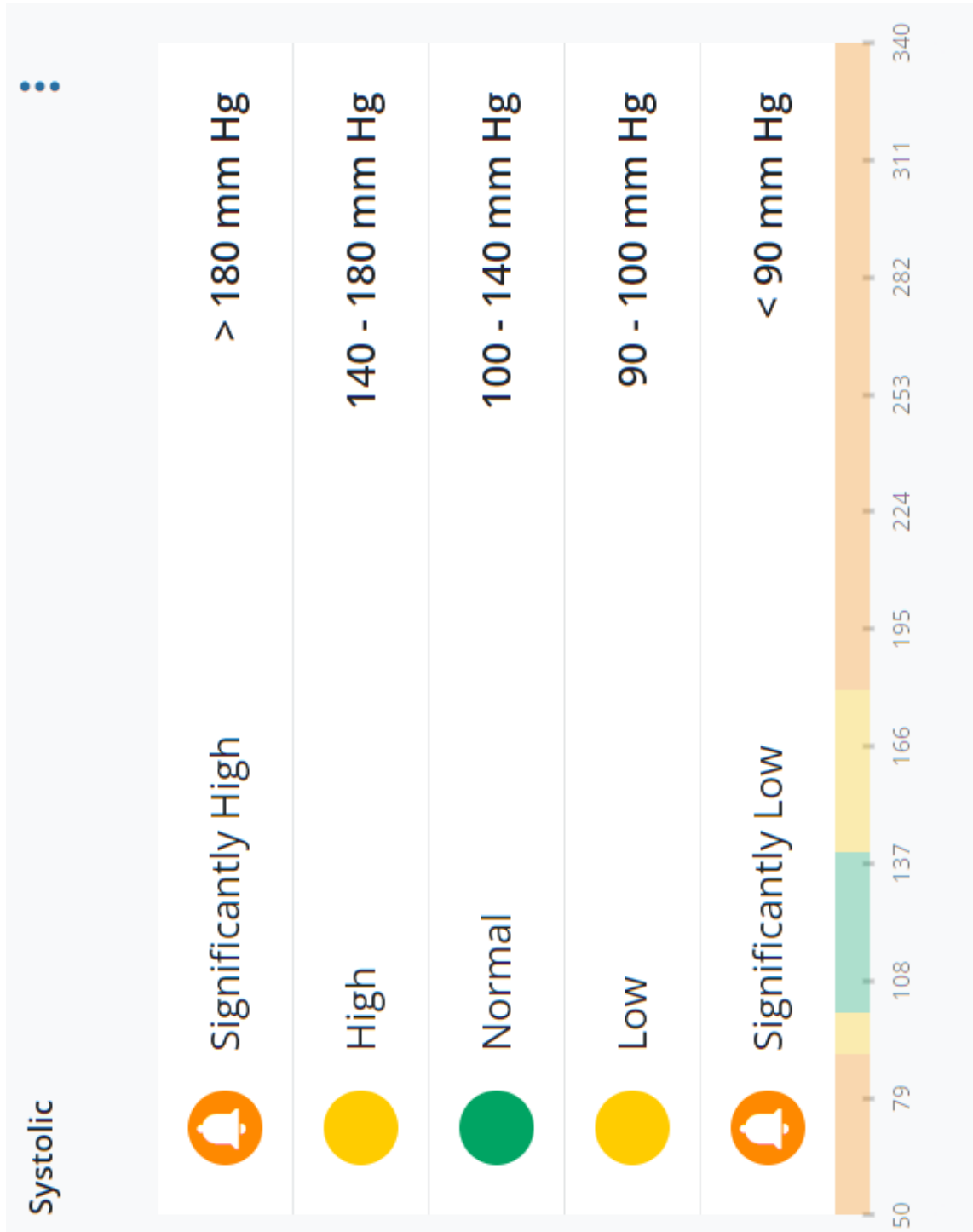
j. Blood Pressure Log

Date	Time	Blood Pressure	Pulse	Notes
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Please remember to bring your completed blood pressure logs to your next provider appointment

k. Blood Pressure Chart



Diastolic

