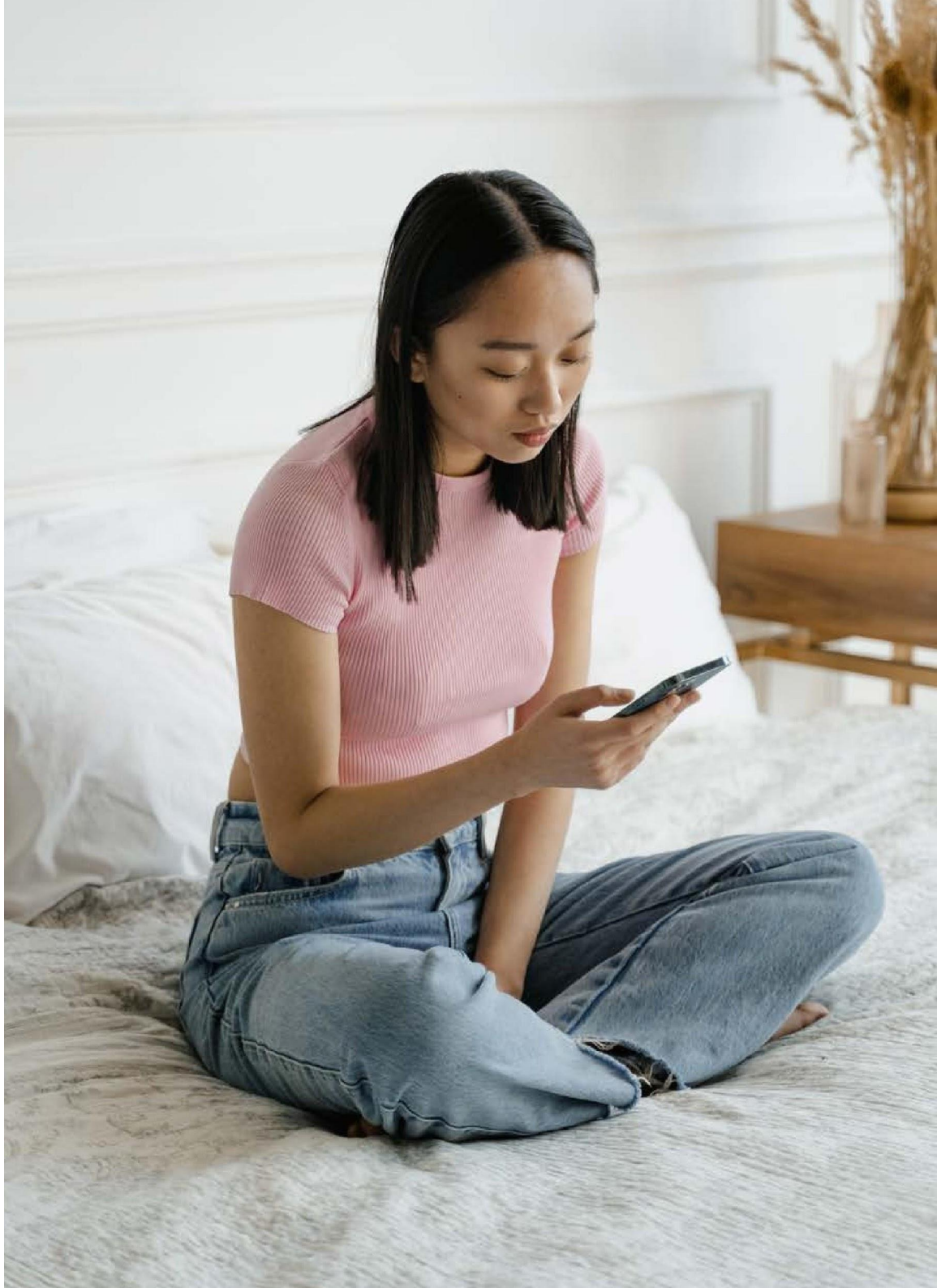
Shen.AI®

HOW TO USE SHEN AI?



How to make a good measurement?

To get the best results with Shen AI, make measurements in a sitting position and good lighting (approx. 400-500 lx) . Make sure that you choose hardware that fits Shen AI's requirements. It's important to make sure your circulatory and respiratory systems are stable, so try to relax in a seated position for at least 5 minutes before starting the measurement.

If you rest for less than 5 minutes, the results may not be as accurate.

During the measurement, breathe normally and keep your head as stable as possible. Do not talk or make facial expressions. Before starting, make sure your face is at the right distance from the camera so that it fits within the frame on the screen. Once you're ready, just press the **START** button.

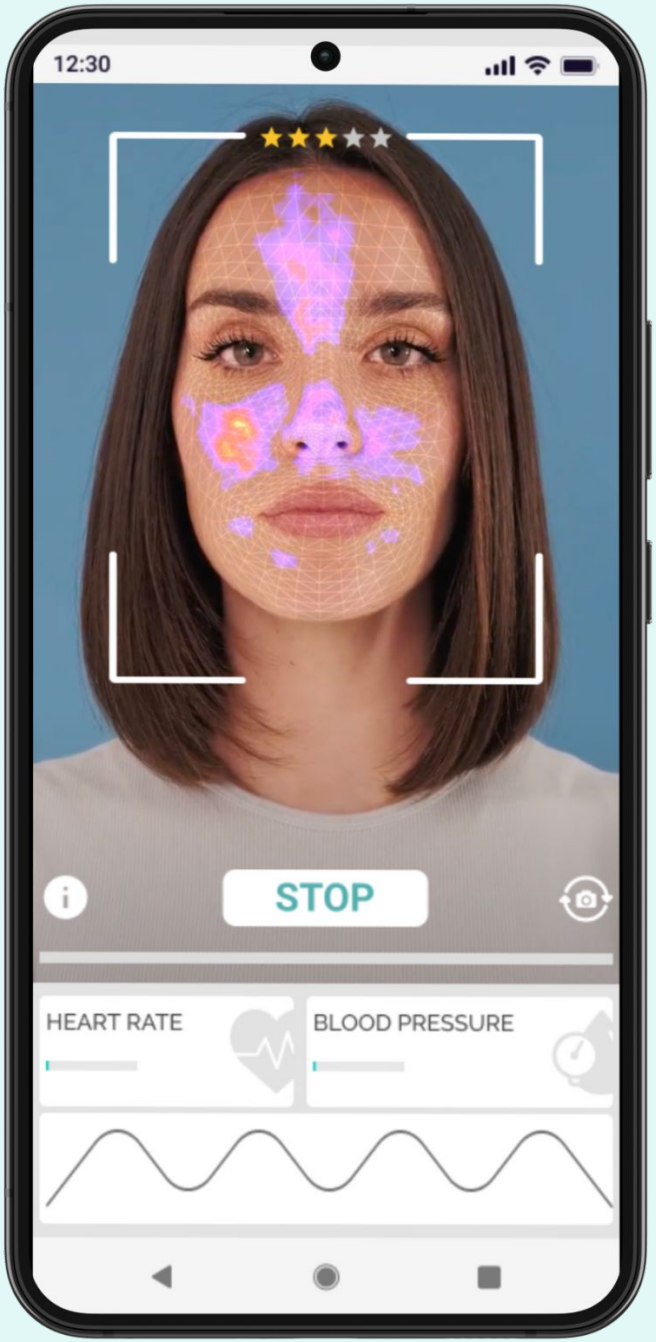
To ensure the most accurate measurement, make sure you have proper lighting.

Use diffused white light (daylight or artificial) that's comfortable to read by.

- even illumination of the entire face (no visible shadows)
- no visible reflexes on facial skin

Proper working conditions of the camera, i.e.:

- camera position stability
- cleanliness of the camera lens
- no direct light falling on the camera lens (especially from behind the examined person)
- no other people (faces) in the camera frame



In case of unstable lighting conditions, an icon will be displayed on the screen. In order to improve the illumination of the face, an additional light source may be used. Please remember to maintain even illumination of the face and avoid reflections.

If, during the recording, the subject's head or the camera change position so that the outline of the face in the frame no longer coincides with the border marked on the screen, the border will turn red, signalling the need to change the position of the head relative to the camera (i.e. bring it closer, further away, right or left alignment).

Proper position of the head and an unobstructed view of the facial skin, i.e.:

- facing the camera so both cheeks are equally visible
- not covering the face with hair, glasses, a mask, or any other object
- no heavy makeup
- no visible moisture or dirt on facial skin
- stable head position
- avoid talking and making facial expressions

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		ME	SD	MAE	RMSE	
Heart rate (HR)	average (60 s)	0.1	0.4	0.1	0.4	bpm
	instantaneous (10 s)	0.1	0.5	0.2	0.5	
	instantaneous (4 s)	0.1	0.8	0.4	0.8	
Heart rate variability (HRV)	SDNN (60 s)	2.8	3.6	3.5	4.5	ms
	lnRMSSD (60 s)	0.2	0.2	0.2	0.3	-
Breathing rate (BR)	average (60 s)	0.2	1.5	1.2	1.5	bpm

Shen.AI accuracy

Important information about Blood Pressure measurement

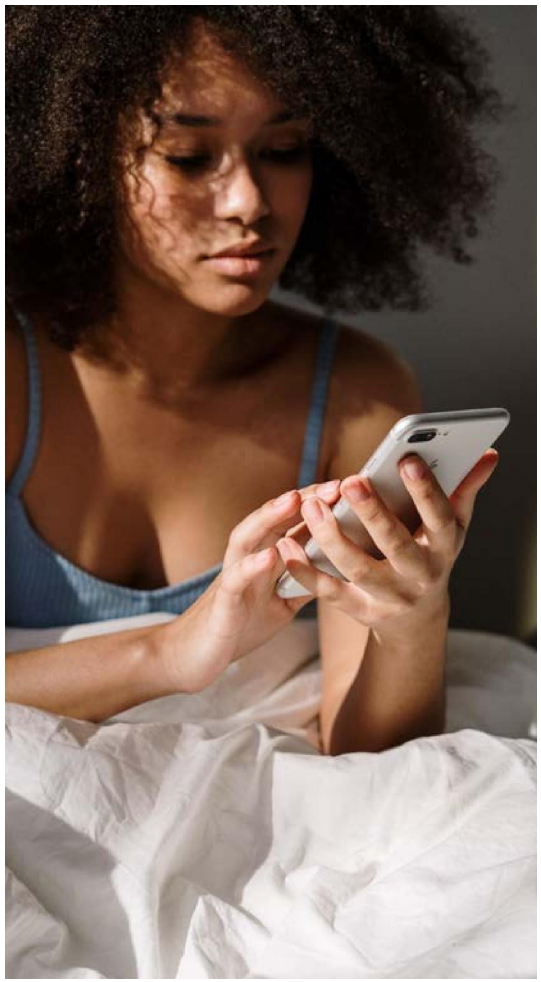
We would like to provide you with some essential information regarding blood pressure measurements that you should be aware of when using the Shen AI technology. It is crucial to understand that blood pressure is never constant and can fluctuate continuously. Here are a few key points to consider.

01

Fluctuations in blood pressure: Blood pressure can vary by approximately 10 mmHg every 5-10 seconds. This means that the readings obtained at different times may differ due to these natural fluctuations.

02

Continuous Measurement: Shen AI utilizes advanced technology to measure blood pressure continuously over a period of 60 seconds. The readings provided by Shen AI represent an average value over this time period, unlike traditional cuff-based sphygmomanometers that provide a snapshot measurement at a specific moment.



03

Potential discrepancies: The method and timing of blood pressure measurement can affect the results. Factors such as movement, talking, or behavior can significantly influence blood pressure. For example, even the act of moving your hand to operate the cuff can cause fluctuations in your blood pressure.

04

Potential variations: It is important to note that there may be variations between blood pressure measurements obtained using reference cuff-based sphygmomanometers, The typical standard deviation of error in such reference devices is reported to be around 3-5 mmHg.

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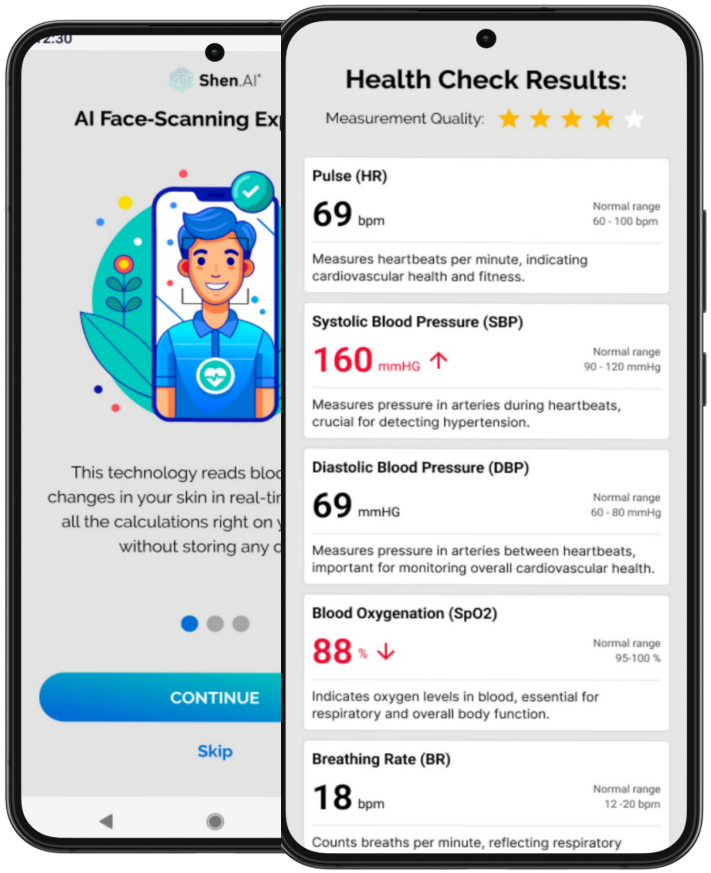

Please keep these factors in mind when interpreting blood pressure readings obtained through Shen AI.
If you have any concerns or questions, we recommend consulting a healthcare professional for further guidance and clarification.

We strive to provide accurate and reliable measurements, but it it essential to understand the limitations and potential variations that can occur. Your understanding and cooperation are greatly appreciated as we work to improve blood pressure measurement technology.

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Stay in touch with us

to get the best overview of the evolving technology and the best use cases.

shen.ai

sales@shen.ai

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