

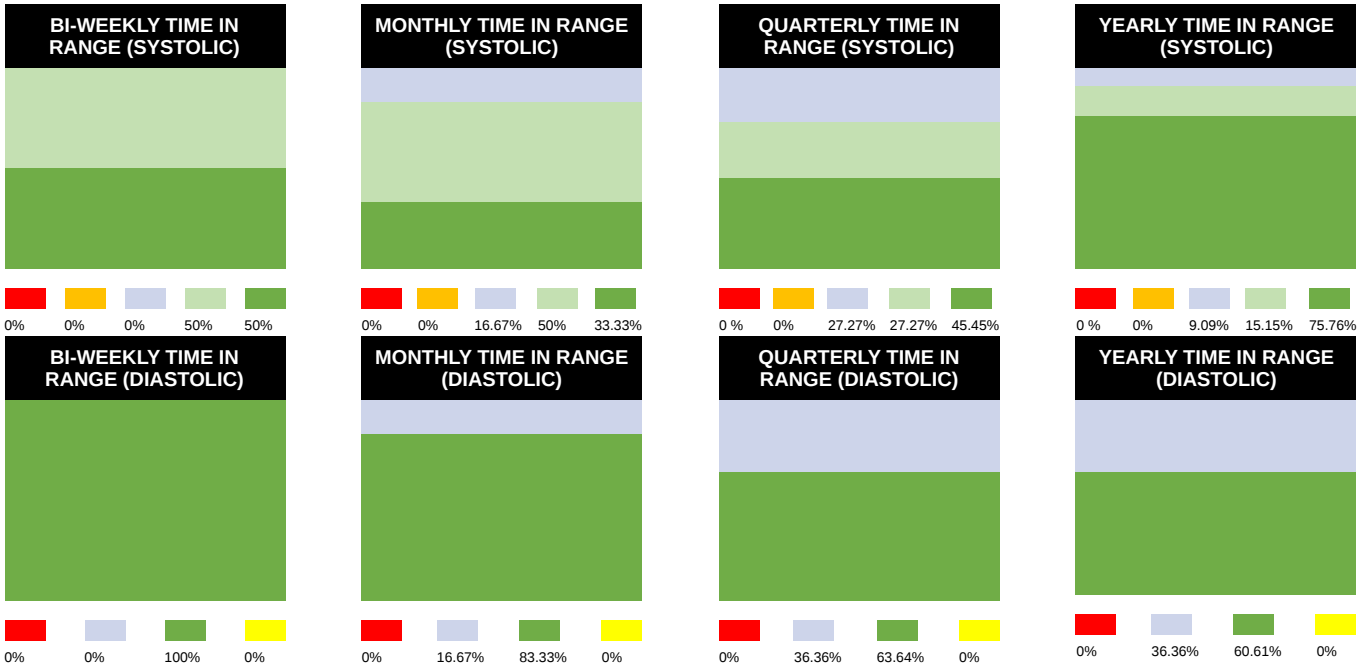


40 Mitchell Ave, Binghamton, NY 13903 Phone:(607) 723-1676

Patient Name: Ms Bonnie Isaac  
Height: 5.2

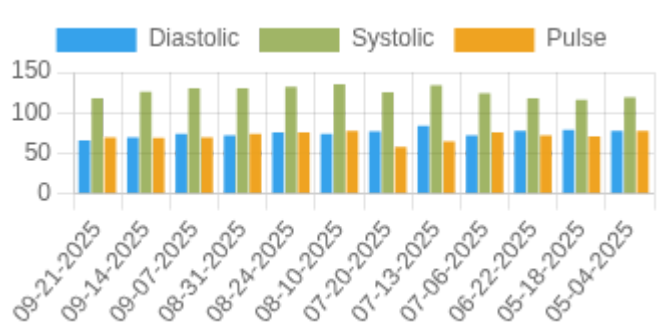
MRN #: 7985  
Weight: 145

Birth Year:  
Hypertension: S1



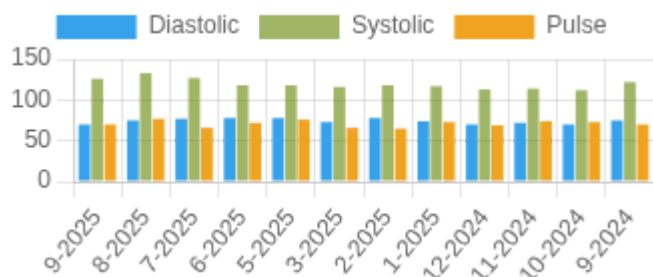
Blood Pressure Averages

Blood Pressure Averages: Weekly



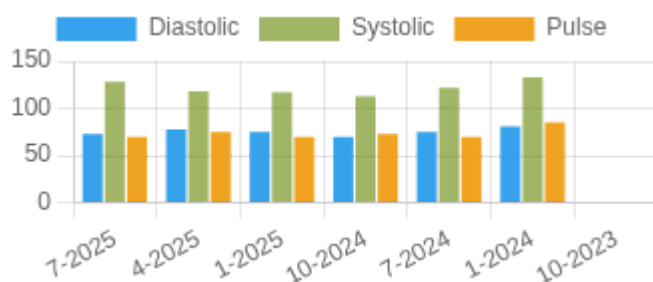
Week	Systolic(n)	Diastolic(n)	Pulse(n)
09-21-2025	118 (1)	66 (1)	70 (1)
09-14-2025	126 (2)	70 (2)	69 (2)
09-07-2025	130 (1)	74 (1)	70 (1)
08-31-2025	130 (1)	72 (1)	74 (1)
08-24-2025	132 (1)	76 (1)	76 (1)
08-10-2025	135 (1)	74 (1)	78 (1)
07-20-2025	125 (1)	77 (1)	58 (1)
07-13-2025	134 (1)	84 (1)	65 (1)
07-06-2025	124 (1)	72 (1)	76 (1)
06-22-2025	118 (1)	78 (1)	72 (1)
05-18-2025	116 (1)	79 (1)	71 (1)
05-04-2025	119 (2)	78 (2)	78 (2)

Blood Pressure Averages: Monthly



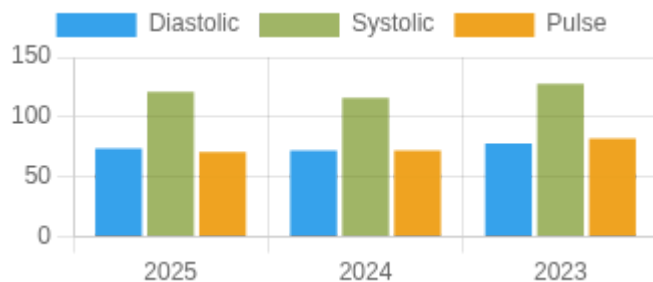
Month-Year	Systolic(n)	Diastolic(n)	Pulse(n)
9-2025	126 (5)	70 (5)	70 (5)
8-2025	133 (2)	75 (2)	77 (2)
7-2025	127 (3)	77 (3)	66 (3)
6-2025	118 (1)	78 (1)	72 (1)
5-2025	118 (3)	78 (3)	76 (3)
3-2025	116 (3)	73 (3)	66 (3)
2-2025	118 (3)	78 (3)	65 (3)
1-2025	117 (8)	74 (8)	73 (8)
12-2024	113 (1)	70 (1)	69 (1)
11-2024	114 (2)	72 (2)	74 (2)
10-2024	112 (2)	70 (2)	73 (2)
9-2024	122 (3)	75 (3)	70 (3)

## Blood Pressure Averages: Quarterly



Quarter-Year	Systolic(n)	Diastolic(n)	Pulse(n)
7-2025	128 (10)	73 (10)	70 (10)
4-2025	118 (4)	78 (4)	75 (4)
1-2025	117 (14)	75 (14)	70 (14)
10-2024	113 (5)	70 (5)	73 (5)
7-2024	122 (3)	75 (3)	70 (3)
1-2024	133 (5)	81 (5)	85 (5)
10-2023	0 (0)	0 (0)	0 (0)

## Blood Pressure Averages: Yearly



Year	Systolic(n)	Diastolic(n)	Pulse(n)
2025	121 (28)	74 (28)	71 (28)
2024	116 (8)	72 (8)	72 (8)
2023	128 (60)	78 (60)	82 (60)

## Blood Sugar Averages

Week	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
09-27-2025	78(1)						
09-19-2025	78(2)						
09-11-2025	76(2)	51(1)					

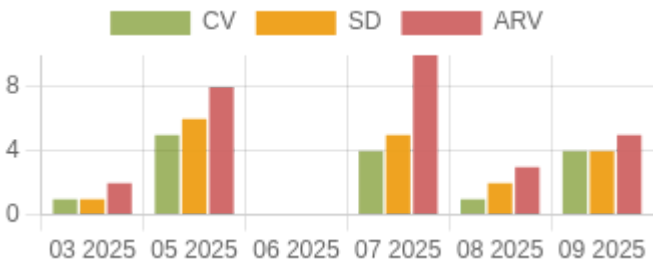
Month-Year	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
09-2025	77(5)	51(1)					
08-2025	87(2)						
07-2025	87(2)		81(1)				

Year	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
01-01-2025	83(18)	84(6)	83(4)			82(2)	
01-01-2024	83(7)	123(4)	85(6)	133(8)	68(3)	101(4)	59(3)
01-01-2023	98(26)	124(12)	91(16)	159(17)	96(12)	152(10)	98(14)

## Chat

Sender	Receiver	Messege	Date&Time
Ms Bonnie Isaac	R.A. Ramanujan , M.D.		23-09-2025
Ms Bonnie Isaac	R.A. Ramanujan , M.D.	hello, the 10mg mounjaro is saying it needs prior auth. It's so crazy that insurance wants to cause an issue when I'm trying to taper off of it, because the lowered doses cost them less!	23-09-2025
Ms Bonnie Isaac	R.A. Ramanujan , M.D.	hello, the 10mg mounjaro	23-09-2025
Amy Burpee , MS,RD,CDE	Ms Bonnie Isaac	👍 moving forward you may want to specify which pharmacy for which prescription when you request a medication and then we can make sure it is sent to to correct pharmacy for you!!	17-09-2025
Ms Bonnie Isaac	R.A. Ramanujan , M.D.	ok thank you!! I usually use UHS but had you guys send the meter to CVS so that's where my confusion came from!	16-09-2025
Amy Burpee , MS,RD,CDE	Ms Bonnie Isaac	According to our records that prescription was sent in on 9/13 to CVS.	16-09-2025
Ms Bonnie Isaac	R.A. Ramanujan , M.D.	hello, I still need a new script for adderal please, I tried to call also but the office is already closed	15-09-2025
Ms Bonnie Isaac	R.A. Ramanujan , M.D.	Hello, I need a new script for adderal please, 10mg x3 per day, to UHS retail Main st JC	12-09-2025
Amy Burpee , MS,RD,CDE	Ms Bonnie Isaac	I have passed the information along to Lexi -- she will send the One Touch Verio Glucometer to the CVS on Helen and Main for you.	04-09-2025
Ms Bonnie Isaac	R.A. Ramanujan , M.D.	they are already closed when I get home from work, can we do CVS Binghamton Helen/Main st?	04-09-2025
null Lexi Matthias, LPN	Ms Bonnie Isaac	UHS RETAIL PHARMACY IS NOT CONTRACTED FR DIABETIC SUPPLIES. CAN I SEND THE PRESCRIPTION TO UHS SPECIALTY? LEXI	04-09-2025
Amy Burpee , MS,RD,CDE	Ms Bonnie Isaac	Insurance should cover a new glucometer for you! I have asked Lexi to send in a new prescription for a OneTouch Verio!!	04-09-2025
Ms Bonnie Isaac	R.A. Ramanujan , M.D.	I lost my glucose test kit :( is it possible my insurance would cover a new one? I have lots of test strips and lancets for the one touch verio	04-09-2025

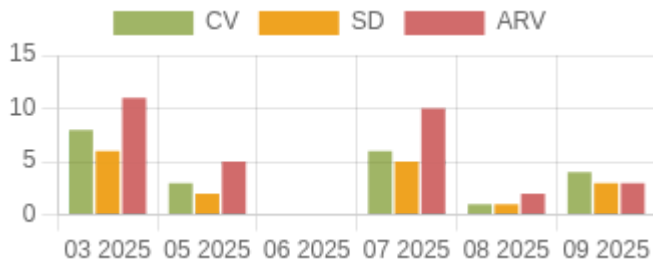
## Systolic Variability Trends



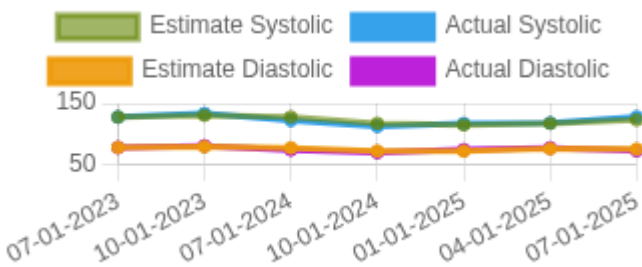
- CV** –The coefficient of variation (CV) is the ratio of the standard deviation to the mean. The higher the coefficient of variation, the greater the level of dispersion around the mean, Units = mmHg.
- ARV** – Average real variability (ARV) is a method for measuring short-term, reading-to-reading, within-subject variability. It is defined as the average of the absolute differences between consecutive readings, Units = mmHg.

3. **SD** – Standard deviation is a statistical measurement of variability. It measures how much variation there is from the average (mean), Units = mmHg.

## Diastolic Variability Trends



## Kalman Trends



1. **Mean(Arithmetic Mean)** – Mean is the average of a set of numbers

2. **SD** – Standard deviation is a statistical measurement of variability. It measures how much variation there is from the average (mean).

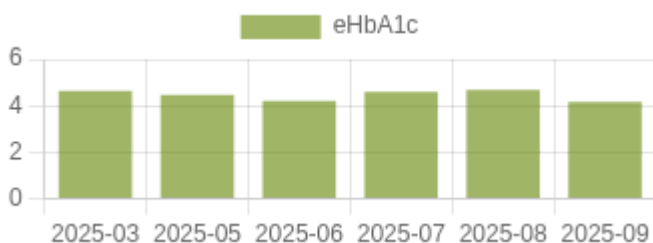
3. **V** - Variance determines the spread of numbers.. It measures how far each number in the set is from the mean (average) and from every other number in the set.

## PSR



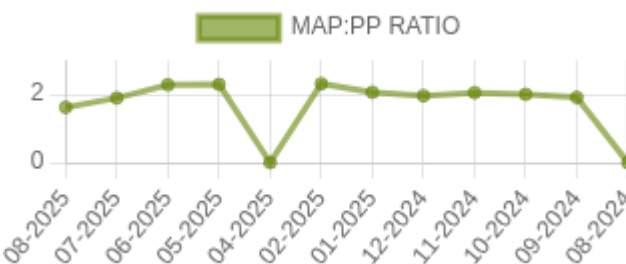
**PSR:** Pulse stiffening ratio (PSR) is the ratio between systolic and diastolic stiffness. It can be expressed as  $PSR = \frac{[systolic\ stiffness]}{[diastolic\ stiffness]}$ .

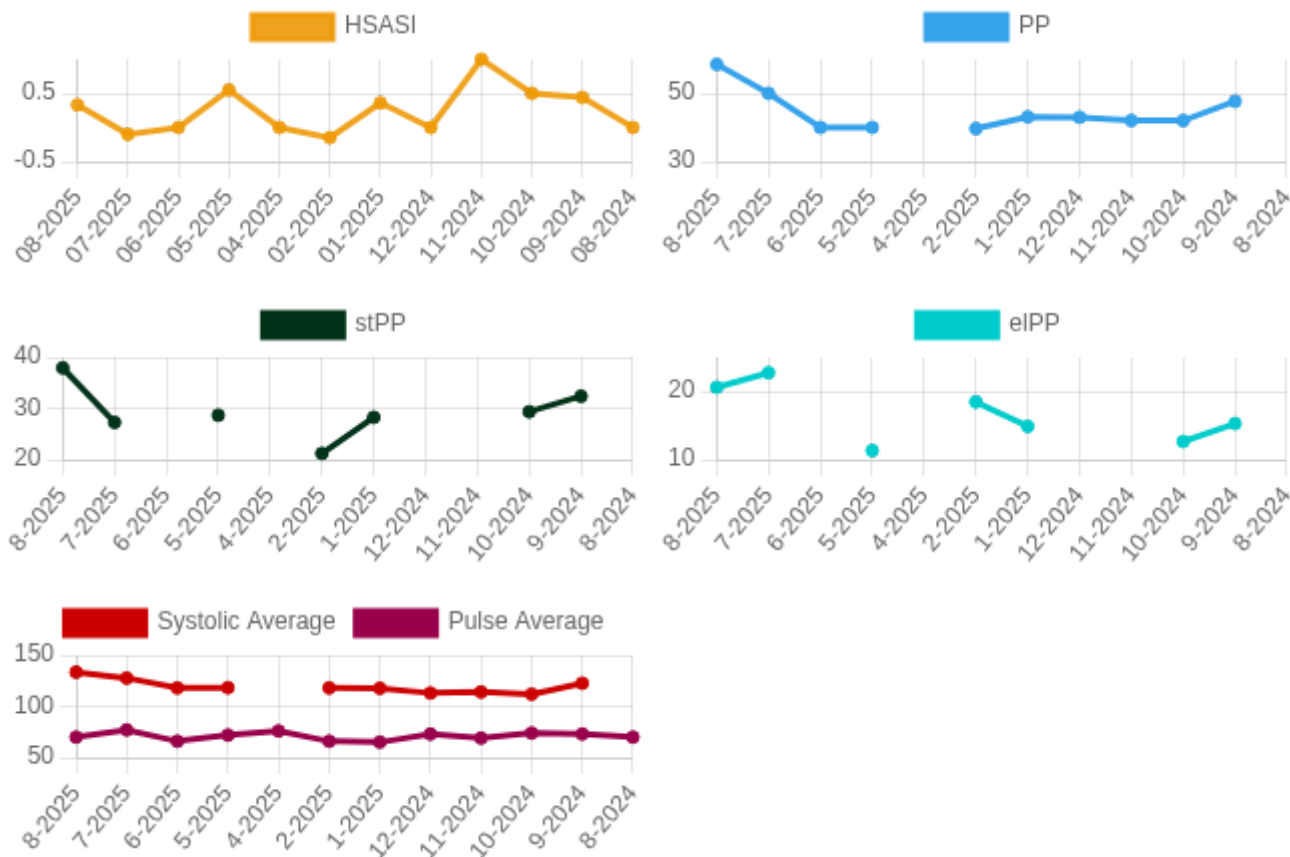
## HbA1c Trends



Estimated HbA1c - eHbA1c

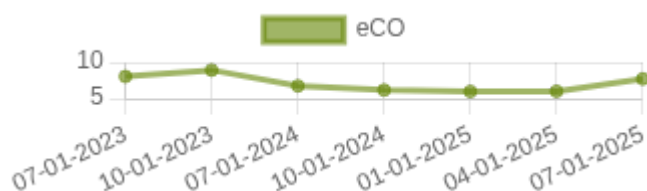
## Others Trends





1. **MAP:PP Ratio**- Mean Arterial Pressure : Pulse Pressure Ratio
2. **HASI**- Home arterial stiffening index
3. **HSASI**- Home Symmetric arterial stiffening index
4. **PP**- Pulse Pressure
5. **WIF or widening factor number.**  $WIF = K - 1 / \ln(K) - 1$ , where K is the variability ratio (  $K = \text{Systolic Std. Dev} / \text{Diastolic Std. Dev}$  )
6. **eIPP**- Elastic component of pulse pressure.  $eIPP = (PP - stPP)$
7. **stPP**- Stiffening component of pulse pressure.  $stPP = PP / (1 + WIF)$

## eCO graph



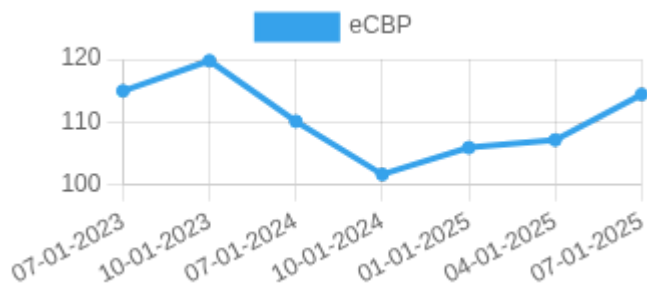
eCO (Estimated Cardiac Output) Normal range to be added 5 – 10 liters/minute

Units of eCO (Estimated Cardiac Output) – liters/minute

## eCBP graph

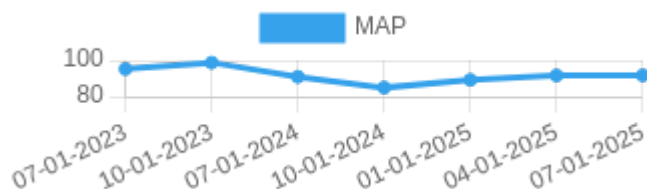
eCBP (Estimated Central Blood Pressure) normal range – 0 – 100 mmHg

1. Cardiac output scale is in liters/minute. Normal range at rest is 5-6 liters/min and (with activity goes up to 30 -35 liters/min)



2. Central mean BP is Squared, Mean radial artery BP/diastolic BP in mmHg. Scale in mmHg and range is in mmHg and the scale Should be between 0-50 50-100, 150 and 200 mmHg. No established normal at the moment.

## MAP graph



MAP -Mean arterial blood pressure.  $MAP = \text{Diastolic blood pressure} + \frac{1}{3}(\text{Systolic blood pressure} - \text{Diastolic blood pressure})$

## Reference & Abbreviations

Guide to abbreviations and blood pressure, pulse and other Metrics.

<b>HBPM</b> -Home blood pressure measurement.	<b>HBS</b> -Home blood sugar
<b>PP</b> -Pulse pressure	<b>AP</b> -Average pulse
<b>BPV</b> -Blood pressure variability	<b>SV</b> -Systolic variability
<b>DV</b> -Diastolic variability	<b>PV</b> -Pulse variability
<b>ARV</b> -Average real variability	<b>CV</b> -Coefficient of variation %
<b>SD</b> -Standard deviation	<b>MAP</b> -Mean arterial blood pressure
<b>MAP:</b> PP Mean Arterial Pressure : Pulse Pressure	<b>HASI</b> -Home arterial stiffness index
<b>HSASI</b> -Home Symmetric arterial stiffness index	<b>Estimated CO</b> -Cardiac output [CO= (PPxHR)x.002]
<b>PSR Pulse stiffening ratio.</b> (PSR = SBP/DBP or slope of systolic BP/slope of diastolic BP)	

Estimated central blood pressure ECBP (ECBP = brachial MBP2/brachial DBP or ECBP = radial MBP2/radial DBP)

### Normal Ranges.

Systolic BP 110 – 120 mm Hg

Diastolic BP 70 – 80 mmHg

Pulse 60 - 100/min

Pulse pressure (PP) 40 mmHg (Low PP less than 25% of the systolic BP and high PP greater than 100 mm Hg)

Normal stroke volume (SV) 60 -100 ml

Cardiac output (CO) SV x pulse rate/min

Estimate Cardiac output = Stroke volume / m

Blood pressure variability; Not defined in USA. But desirable ranges ESH guidelines; Systolic day time BP less than 15 mmHg and Diastolic less than 7.9 mmHg and Weighted SD less than 12.8 mmHg for systolic

#### Definitions.

MAP:PP ratio not defined.

Pulse stiffening ration; Not defined.  $\text{Pulse pressure} \times \text{inverse log (std. dev. systolic / std. dev. Diastolic)} / (\text{std. dev. systolic} / \text{std. dev. Diastolic}) - 1$  (Pulse pressure  $\times \ln(K)/(K-1)$  where K is systolic Sd /diastolic SD.)

Home arterial stiffness index; Not defined

Home arterial symmetric arterial index: Not defined.

Central blood pressure:Not defined

#### References.

MAP;  
Chemla D, Antony I, Zamani K, Nitenberg A. Mean aortic pressure is the geometric mean of systolic and diastolic aortic pressure in resting humans. J Appl Physiol (1985). 2005 Dec;99(6):2278-84. doi: 10.1152/japplphysiol.00713.2005. Epub 2005 Jul 28. PMID: 16051709. Tien LYH, Morgan WH, Cringle SJ, Yu DY. Optimal Calculation of Mean Pressure From Pulse Pressure. Am J Hypertens. 2023 May 21;36(6):297-305. doi: 10.1093/ajh/hpad026. PMID: 36945835; PMCID: PMC10200551.

#### PSR:

Gavish B, Izzo JL Jr. Arterial Stiffness: Going a Step Beyond. Am J Hypertens. 2016 Nov 1;29(11):1223-1233. doi: 10.1093/ajh/hpw061. PMID: 27405964.

#### DCBP:

Chemla D, Millasseau S, Hamzaoui O, Teboul JL, Monnet X, Michard F, Jozwiak M. New Method to Estimate Central Systolic Blood Pressure From Peripheral Pressure: A Proof of Concept and Validation Study. Front Cardiovasc Med. 2021 Dec 15;8:772613. doi: 10.3389/fcvm.2021.772613. PMID: 34977186; PMCID: PMC8714848.

#### CO

Koenig J, Hill LK, Williams DP, Thayer JF. Estimating cardiac output from blood pressure and heart rate: the liljestrand& zander formula. Biomed Sci Instrum. 2015;51:85-90. PMID: 25996703; PMCID: PMC5317099.

#### BP

Mean arterial blood pressure;

Guidelines recommend less than 125 mmHg Poon LC, Shennan A, Hyett JA, Kapur A, Hadar E, Divakar H, McAuliffe F, da Silva Costa F, von Dadelszen P, McIntyre HD, Kihara AB, Di Renzo GC, Romero R, D'Alton M, Berghella V, Nicolaides KH, Hod M. The International Federation of Gynecology and Obstetrics (FIGO) initiative on pre-eclampsia: a pragmatic guide for first-trimester screening and prevention. Int J

#### GynaecolObstet 2019;

145(Suppl 1):1–33.Not defined in general (desirable MAP ,90 mm Hg)Melgarejo JD, Yang WY, Thijs L, Li Y, Asayama K, Hansen TW, Wei FF, Kikuya M, Ohkubo T, Dolan E, Stolarz-Skrzypek K, Huang QF, Tikhonoff V, Malyutina S, Casiglia E, Lind L, Sandoya E, Filipovský J, Gilis-Malinowska N, Narkiewicz K, Kawecka-Jaszcz K, Boggia J, Wang JG, Imai Y, Vanassche T, Verhamme P, Janssens S, O'Brien E, Maestre GE, Staessen JA, Zhang ZY; International Database on Ambulatory Blood Pressure in Relation to Cardiovascular Outcome Investigators\*. Association of Fatal and Nonfatal Cardiovascular Outcomes With 24-Hour Mean Arterial Pressure. Hypertension. 2021 Jan;77(1):39-48

We hope these complementary multiparametric data along with standard set used in daily practice helps to understand home blood pressure trend and other information they may potentially generate in the future to understand medication effects and patient management.

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