



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

Patient Name: Steven Zerby  
Height: 5.10

MRN #: 8131  
Weight: 161

Birth Year:  
Hypertension: S1

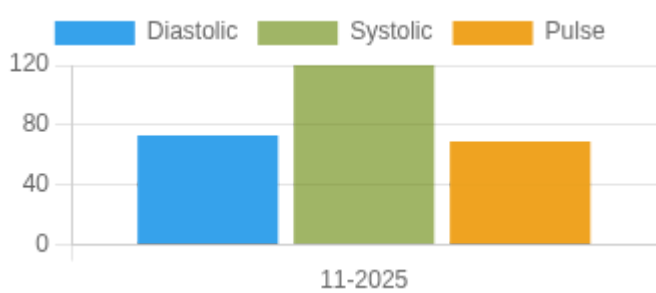


Blood Pressure Averages

Blood Pressure Averages: Weekly

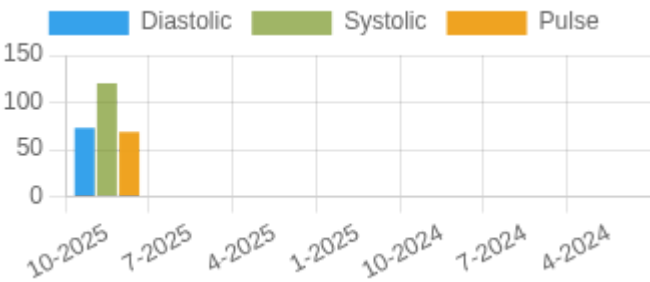
Week	Systolic(n)	Diastolic(n)	Pulse(n)
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Blood Pressure Averages: Monthly



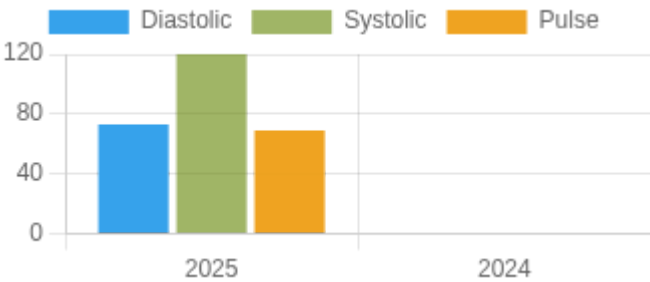
Month-Year	Systolic(n)	Diastolic(n)	Pulse(n)
11-2025	120 (1)	73 (1)	69 (1)

Blood Pressure Averages: Quarterly



Quarter-Year	Systolic(n)	Diastolic(n)	Pulse(n)
10-2025	120 (1)	73 (1)	69 (1)
7-2025	0 (0)	0 (0)	0 (0)
4-2025	0 (0)	0 (0)	0 (0)
1-2025	0 (0)	0 (0)	0 (0)
10-2024	0 (0)	0 (0)	0 (0)
7-2024	0 (0)	0 (0)	0 (0)
4-2024	0 (0)	0 (0)	0 (0)

Blood Pressure Averages: Yearly



Year	Systolic(n)	Diastolic(n)	Pulse(n)
2025	120 (1)	73 (1)	69 (1)
2024	0 (0)	0 (0)	0 (0)

Blood Sugar Averages

Week	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
12-07-2025	113(1)	112(1)	123(1)	90(1)	109(2)	112(1)	
11-29-2025	115(5)	124(1)	94(3)	120(3)	102(4)	101(3)	
11-21-2025	130(7)	140(3)	98(6)	139(4)	115(6)	125(4)	
11-13-2025	126(8)	132(6)	116(7)	132(6)	112(8)	130(5)	

Month-Year	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
12-2025	113(1)	112(1)	123(1)	90(1)	109(2)	112(1)	
11-2025	125(20)	133(10)	105(16)	131(13)	110(18)	121(12)	
10-2025	132(18)	142(14)	119(10)	139(4)	112(18)	150(17)	
09-2025	133(20)	149(18)	126(28)	137(19)	119(29)	131(22)	

Year	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
01-01-2025	134(266)	148(206)	123(235)	143(168)	120(257)	137(178)	152(1)
01-01-2024	135(198)	148(150)	121(163)	146(100)	120(179)	135(139)	

Chat

Sender	Receiver	Messege	Date&Time
R.A. Ramanujan , M.D.	Steven Zerby	Happy Thanksgiving!	26-11-2025
Amy Burpee , MS,RD,CDE	Steven Zerby	👍	07-11-2025

Steven Zerby	R.A. Ramanujan , M.D.	It's weird. I have it connected to Apple health app. It sent readings to check my vitals again all night every five minutes until 4:35 this morning. I can see what I need to see on the Lingo App so no biggie. I will continue to input numbers manually in check my vitals regardless.	07-11-2025
Amy Burpee , MS, RD, CDE	Steven Zerby	I was not aware that was what you are using! The only way for us to get the data from the Lingo is for you to export the glucose or sync with Apple Health. If you are having issue with it I would suggest getting a hold of someone from the company and letting them know. We do not have anything to do with the Lingo. 😊	07-11-2025
Steven Zerby	R.A. Ramanujan , M.D.	actually it's not the Libre, it's the lingo...their over-the-counter one. I don't see that option in the lingo app. it does seem to be having on and off periods of feeding readings to check my vitals. it'll populate every five minutes for a couple of hours or more and then suddenly not.	07-11-2025
Amy Burpee , MS, RD, CDE	Steven Zerby	The Free Style Libre app	07-11-2025
Steven Zerby	R.A. Ramanujan , M.D.	which app?	06-11-2025
Amy Burpee , MS, RD, CDE	Steven Zerby	I believe it is located in the lower right hand corner of the app	06-11-2025
Amy Burpee , MS, RD, CDE	Steven Zerby	The profile should look like a person's head	06-11-2025
Steven Zerby	R.A. Ramanujan , M.D.	go into the profile where?	06-11-2025
Amy Burpee , MS, RD, CDE	Steven Zerby	Our Libre View account is not showing you linked to us. You need to go into the profile - find connected apps - go to connect to a practice -- enter our practice ID which is: DCALibre and this should connect you to us.	06-11-2025
Steven Zerby	R.A. Ramanujan , M.D.	I see my Libre glucose monitor started sending glucose numbers every five minutes since 1:35 this morning and then stopped at 9:35.	06-11-2025
null Sue Ward	Steven Zerby	Medicare open enrollment has begun and will continue through December 7th. If you choose a plan we don't participate with, we will not be able to continue seeing you. As always, we require you to present your insurance card & copay at every visit, so remember to bring insurance card with you. The Medicare Advantage plans we participate with are AARP Medicare Aetna Medicare BCBS/Excellus Medicare CDCPHP Medicare Cigna/MVP Medicare Humana Medicare Medicare/Medicaid Railroad United Healthcare Medicare United Healthcare Dual Complete If you have any questions, please contact out office at 607-723-1676. We have sent a similar message through the patient portal as well. No response back through the checkmyvitals is needed. Hope to see you all next year DCA providers and staff	06-11-2025
Steven Zerby	R.A. Ramanujan , M.D.	Sorry for the lack of data the last few weeks. I had an issue with my dexcom deliveries and had to switch to Abbott Libre cgm. Dexcom will only use Amazon delivery service, and the driver for this area seems to be unable to find my house.	06-11-2025

## Systolic Variability Trends

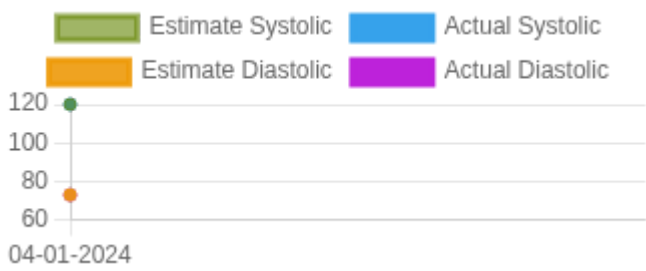
1. **CV** –The coefficient of variation (CV) is the ratio of the standard deviation to the mean. The higher the coefficient of variation, the greater the level of dispersion around the mean, Units = mmHg.

2. **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.

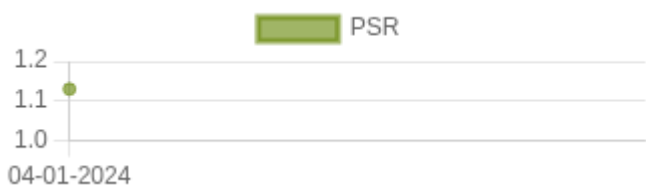
# Diastolic Variability Trends

## Kalman Trends



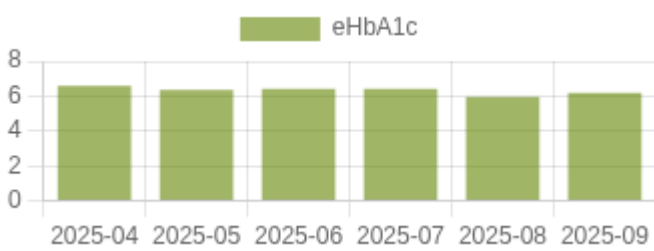
- 1. **Mean(Arithmetic Mean)** – Mean is the average of a set of numbers
- 2. **SD** – Standard deviation is a statistical measurement of variability. It measures how much variation there is from the average (mean).
- 3. **V-** Variance determines the spread of numbers.. It measures how far each number in the set is from the mean (average) and from every other number in the set.

## PSR



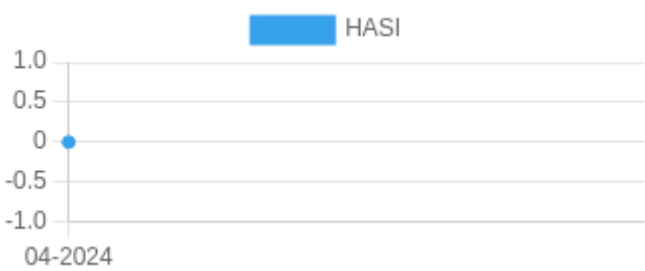
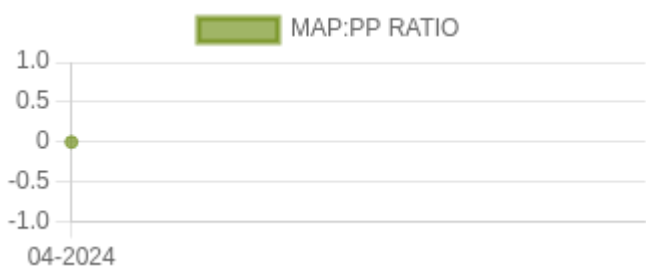
**PSR:** Pulse stiffening ratio (PSR) is the ratio between systolic and diastolic stiffness. It can be expressed as  $PSR = \frac{[systolic\ stiffness]}{[diastolic\ stiffness]}$ .

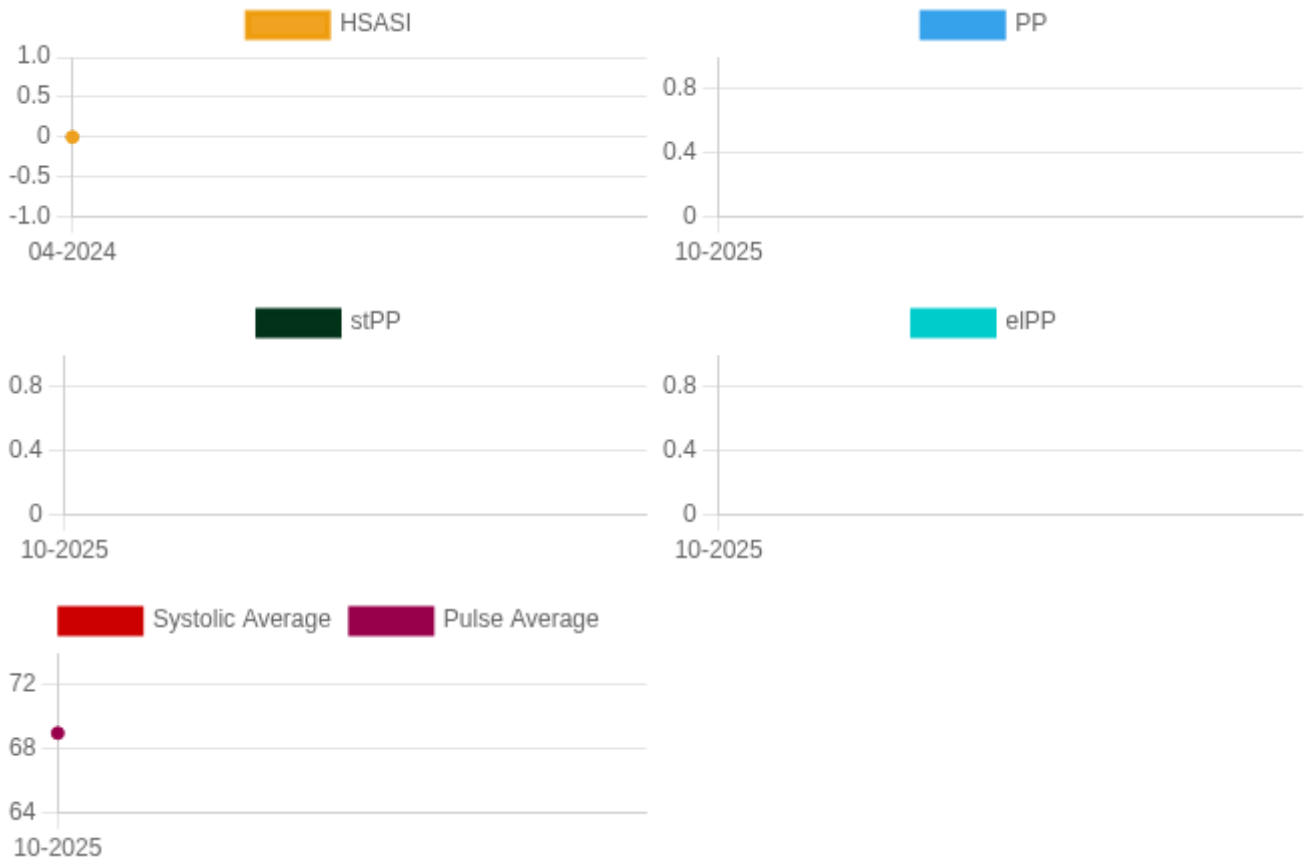
## HbA1c Trends



**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



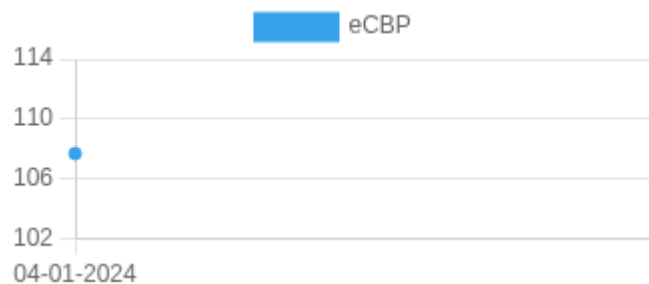
eCO (Estimated Cardiac Output) Normal range to be added 5 – 10 liters/minute

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

## eCBP graph

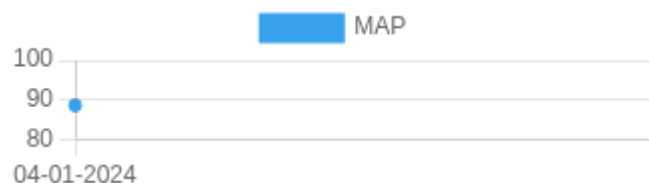
eCBP (Estimated Central Blood Pressure) normal range – 0 – 100 mmHg

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.  $\text{Pulse pressure} \times \text{inverse log (std. dev. systolic / std. dev. Diastolic) / (std. dev. systolic / std. dev. Diastolic)} - 1$  (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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