

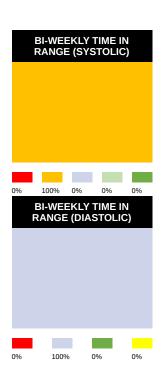


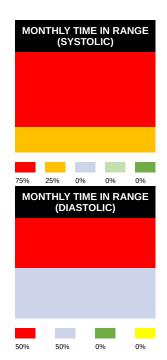
#### 40 Mitchell Ave, Binghamton, NY 13903 Phone: (607) 723-1676

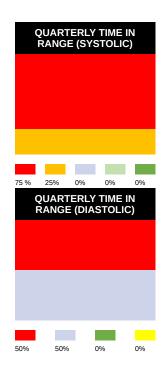
Patient Name: Tracey Svenson-Gates

Height:

MRN #: 8305 Weight: Birth Year: Hypertension: S1



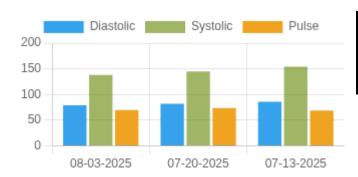






## **Blood Pressure Averages**

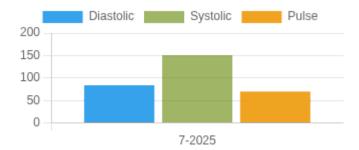
**Blood Pressure Averages: Weekly** 



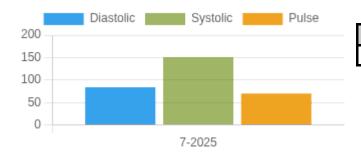
Week	Systolic(n)	Diastolic(n)	Pulse(n)
08-03-2025	138 (1)	79 (1)	70 (1)
07-20-2025	145 (1)	82 (1)	74 (1)
07-13-2025	154 (2)	86 (2)	69 (2)

# **Blood Pressure Averages: Monthly**

Month-Year	Systolic(n)	Diastolic(n)	Pulse(n)
7-2025	151 (3)	84 (3)	70 (3)

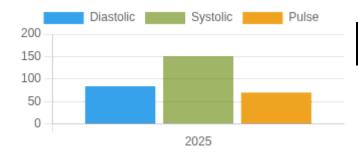


# **Blood Pressure Averages: Quarterly**



Quarter-Year Systolic(n)		Diastolic(n)	Pulse(n)	
7-2025	151 (3)	84 (3)	70 (3)	

# **Blood Pressure Averages: Yearly**



Year	Systolic(n)	Diastolic(n)	Pulse(n)
2025	151 (3)	84 (3)	70 (3)

# **Blood Sugar Averages**

Week	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
07-17-2025			102(2)				

Month-Year	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
07-2025			102(2)				

Year	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Bedtime
01-01-2025			102(2)				

# **Chat**

Sender	Receiver	Messege	Date&Time
Mr. Anu Banerjee	Tracey Svenson- Gates	Hello Patient with Android devices, Good evening, and hope you are having a great weekend. This message is to inform you that all Android issues have been resolved at this time. If you receive a message after upgrading your app, please allow permission to access your steps and exercise data. No confidential data is shared from your phone. We appreciate your patience and understanding as we undergo	28-07-2025

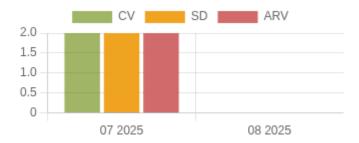
		some upgrades. Again, this message is only for patients with Android devices, not iPhone devices. Thank you CMV Support Staff	
R.A. Ramanujan , M.D.	Tracey Svenson- Gates	GM Tracey, Appreciate your commitment to send BP #.Can you send extra BP # this week end-one from different time zones ??	25-07-2025
Allison , M.D.	Tracey Svenson- Gates	Good afternoon! I have some exciting news for our patients who are currently using a Dexcom or Libre CGM! Diabetic Care Associates has partnered with Center Health to provide even more exceptional care to our patients. You may have already received a link to join, but if you haven't, you can use this web address: https://center.health/dca to sign up. Our Practice Code is QJ2M25. ** It is important to note that you will also need to have either the Dexcom or Libre app already installed on your phone in order to participate. When you are linking Center Health to your Dexcom or Libre app, you will also need the password to your Dexcom or Libre app in order to link it appropriately. ** Center Health allows our providers the ability to monitor your levels in between your visits, in order to better personalize your treatment and receive alerts if you ever develop high risk patterns. At this time only Dexcom and Libre CGM's are supported. After you are enrolled, there is nothing else for you to do! You will receive a confirmation text or email which will include information on the Center Health Diabetes App (WHICH IS COMPLETELY FREE TO USE AS A PATIENT OF DCA ON A CGM). This app is NOT a requirement to participate with Center Health; the Center Health app is just an added perk which would allow you to do things like sync your fitness trackers & CGM and have access to Center Health's virtual diabetes assistant Aria; she can even give you menu and recipe recommendations! Have a great day!	23-07-2025
null Sue Ward	Tracey Svenson- Gates	Hi Tracey we will send for Onetouch Verio products. Let us know if these are not covered	22-07-2025
Tracey Svenson- Gates	R.A. Ramanujan , M.D.	CVS Robinson st, Bing NY	22-07-2025
R.A. Ramanujan , M.D.	Tracey Svenson- Gates	GM Tracey, It was a pleasure seeing you. Sorry for the delay. The device Rx, strips and + will be sent to your Pharmacy. In case if the pharmacy ?? please alert us. Best	22-07-2025
Tracey Svenson- Gates	R.A. Ramanujan , M.D.	Hi Dr.Ranmanujen - just wondering if my chemstrips and glucose machine were called into pharmacy	21-07-2025
Mr. Anu Banerjee	Tracey Svenson- Gates	We are still experiencing some server issues. We are actively working on mediating these issues so that it does not impact data entries. We have asked for external consultant help to help us with this problem. We expect to get this issue resolved by this week. We apologize for any inconvenience that it has created and the slownesson your end. Thank you for your patience.	21-07-2025

# **Systolic Variability Trends**

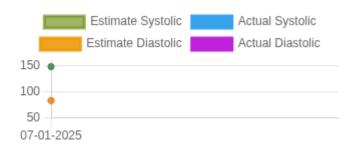


- 1. CV –The coefficient of variation (CV) is the ratio of the standard deviation to the mean. The higher the coefficient of variation, the greater the level of dispersion around the mean, Units = mmHg.
- 2. ARV Average real variability (ARV) is a method for measuring short-term, reading-to-reading, 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



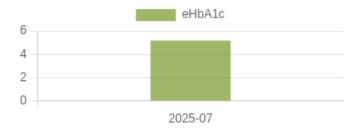
- 1. Mean(Arithmetic Mean) Mean is the average of a set of numbers
- 2. SD Standard deviation is a statistical measurement of variability. It measures how much variation there is from the average (mean).
- 3. V- Variance determines the spread of numbers.. It measures how far each number in the set is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

#### **PSR**



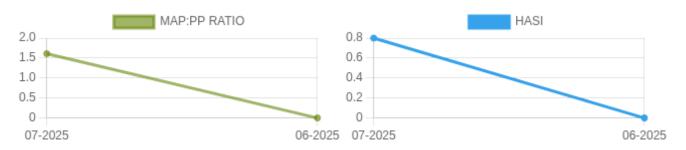
PSR: Pulse stiffening ratio (PSR) is the ratio between systolic and diastolic stiffness. It can be expressed as PSR = [systolic stiffness]/[diastolic stiffness].

### **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/In(K)-1, where K is the variability ratio ( K = Systolic Std. Dev / Diastolic Std. Dev)
- 6. elPP- Elastic component of pulse pressure. elPP= (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

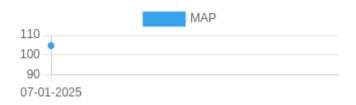
eCBP (Estimated Central Blood Pressure) normal range -0-100 mmHg

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 = Diastolic blood pressure + 1/3(Systolic blood pressure – Diastolic blood pressure)

#### **Reference & Abbreviations**

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

HBPM -Homme blood pressure measurement.	HBS -Home blood sugar		
PP -Pulse pressure	AP -Average pulse		
BPV -Blood pressure variability	SV -Systolic variability		
DV -Diastolic variability	PV -Pulse variability		
ARV -Average real variability	CV -Coefficient of variation %		
SD -Standard deviation	MAP -Mean arterial blood pressure		
MAP: PP Mean Arterial Pressure : Pulse Pressure	HASI -Home arterial stiffness index		
HSASI -Home Symmetric arterial stiffness index	Estimated CO -Cardiac output [CO= (PPxHR)x.002]		
PSR Pulse stiffening ratio. (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. Pulse pressure \* inverse log ( std. dev. systolic / std. dev. Diastolic) / (std. dev. systolic / std. dev. Diastolic) - 1 (Pulse pressure X In (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. FrontCardiovasc 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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