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

Patient Name: Diana Pearson
Height: 5.0

MRN #: 8225
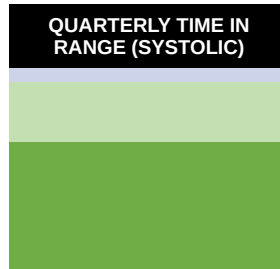**Weight:** 147

Birth Year:
Hypertension: S1

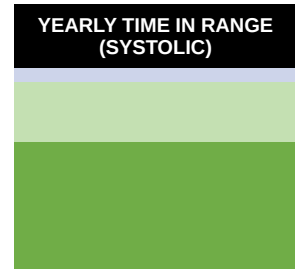| BI-WEEKLY TIME IN RANGE (SYSTOLIC)	MONTHLY TIME IN RANGE (SYSTOLIC)	QUARTERLY TIME IN RANGE (SYSTOLIC)	YEARLY TIME IN RANGE (SYSTOLIC)
0% 0% 6.67% 6.67% 86.67%	0% 0% 6.45% 19.35% 74.19%	0 % 0% 6.98% 30.23% 62.79%	0 % 0% 6.98% 30.23% 62.79%
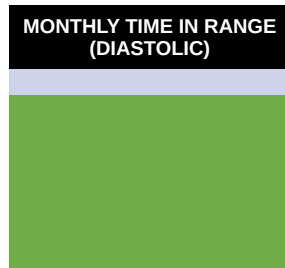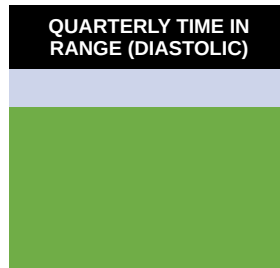
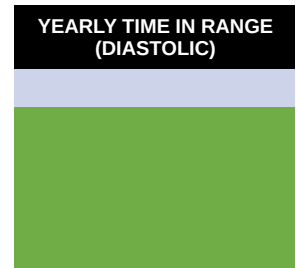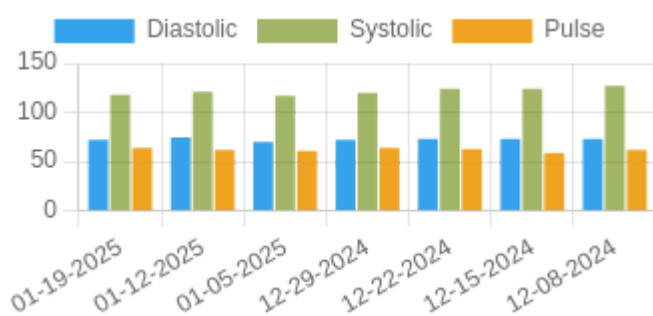| BI-WEEKLY TIME IN RANGE (DIASTOLIC)	MONTHLY TIME IN RANGE (DIASTOLIC)	QUARTERLY TIME IN RANGE (DIASTOLIC)	YEARLY TIME IN RANGE (DIASTOLIC)
0% 13.33% 86.67% 0%	0% 12.9% 87.1% 0%	0% 18.6% 81.4% 0%	0% 18.6% 81.4% 0%

Blood Pressure Averages

Blood Pressure Averages: Weekly

Week	Systolic(n)	Diastolic(n)	Pulse(n)
01-19-2025	118 (5)	72 (5)	64 (5)
01-12-2025	121 (6)	75 (6)	62 (6)
01-05-2025	117 (7)	70 (7)	61 (7)
12-29-2024	120 (7)	72 (7)	64 (7)
12-22-2024	124 (7)	73 (7)	63 (7)
12-15-2024	124 (7)	73 (7)	59 (7)
12-08-2024	127 (4)	73 (4)	62 (4)

Blood Pressure Averages: Monthly

Month-Year	Systolic(n)	Diastolic(n)	Pulse(n)
12-2024	125 (20)	73 (20)	61 (20)
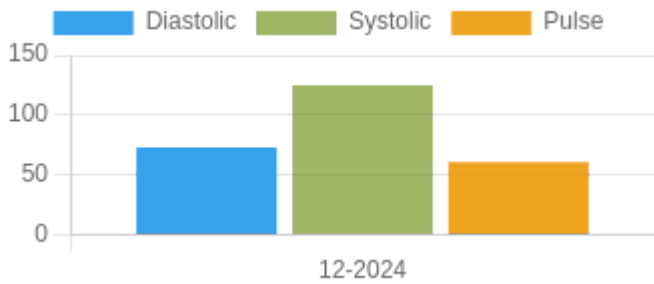
Blood Pressure Averages: Quarterly
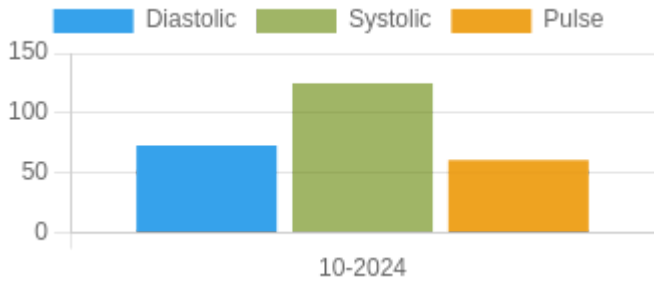
Quarter-Year	Systolic(n)	Diastolic(n)	Pulse(n)
10-2024	125 (20)	73 (20)	61 (20)

Blood Pressure Averages: Yearly
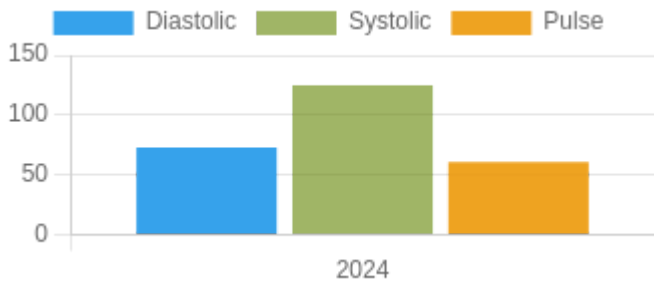
Year	Systolic(n)	Diastolic(n)	Pulse(n)
2024	125 (20)	73 (20)	61 (20)

Chat

Sender	Receiver	Messege	Date&Time
Diana Pearson	R.A. Ramanujan , M.D.	Thank You Dr.. We already love you office	08-01-2025
R.A. Ramanujan , M.D.	Diana Pearson	👍	07-01-2025
Diana Pearson	R.A. Ramanujan , M.D.	Scripts: Express Scripts Home Delivery, #855-315-5220; (Omeprazole DR CAP, 20 MG, (3 month supply). Last Dispensed 11/10/2024); (Atorvastatin TAB, 10 MG, (3 month supply). Last dispensed 11/17/2024). (Verapamil SR TAB 180 MG 12H, (3 month supply). Last dispensed 12/23/2024).	07-01-2025
Diana Pearson	R.A. Ramanujan , M.D.	Thank You	06-01-2025
R.A. Ramanujan , M.D.	Diana Pearson	Happy New Year!	31-12-2024
null Sue Ward	Diana Pearson	***Have a Merry Christmas *** from everyone at DCA	24-12-2024
Diana Pearson	R.A. Ramanujan , M.D.	Thank You, Dr🙏	21-12-2024

|			
R.A. Ramanujan , M.D.	Diana Pearson	Made the change👍🙏	21-12-2024
Diana Pearson	R.A. Ramanujan , M.D.	I notice on my paperwork you have me down for 'Verapamil Capsules'. I take Verapamil 180 mg 'TABS' 12 HR'	21-12-2024
null Sue Ward	Diana Pearson	Will have staff member call Sue	16-12-2024
Diana Pearson	R.A. Ramanujan , M.D.	I don't know if my husband (Mike) told you; but he is numb on his right side from his rib cage to his toes from his work injury in 2008. He also gets weird shaped & weird colored bruises. It doesn't look like normal bruising to me. When I asked him if he told you about it, he said he forgot.	15-12-2024
Diana Pearson	R.A. Ramanujan , M.D.	Dr - We talked about only my right hand shaking. I tested my left hand with my toothbrush. It shakes as well.	15-12-2024
Diana Pearson	R.A. Ramanujan , M.D.	🙏for you as well	15-12-2024
R.A. Ramanujan , M.D.	Diana Pearson	🙏	15-12-2024
Diana Pearson	R.A. Ramanujan , M.D.	Thank you Dr	15-12-2024
R.A. Ramanujan , M.D.	Diana Pearson	GM Diana, Thanks for sending the BP readings. Keep up and will update any thing we get to learn more. Best and Happy holidays!	15-12-2024
null Lexi Matthias, LPN	Diana Pearson	ARE YOU SELECTING LEFT OR RIGHT FOR WHICH ARM YOU TOOK THE BLOOD PRESSURE IN?	12-12-2024
Diana Pearson	R.A. Ramanujan , M.D.	my app won't submit its information	12-12-2024

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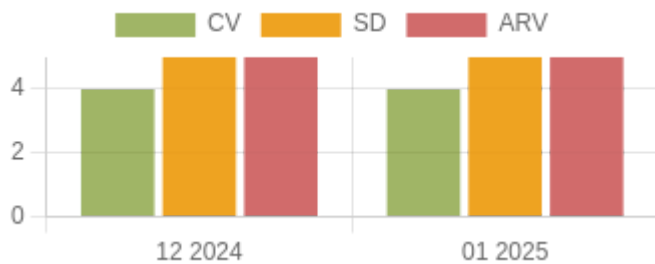
1. CV –The coefficient of variation (CV) is the ratio of the standard deviation to the mean. The higher the coefficient of variation, the greater the level of dispersion around the mean, Units = mmHg.

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

Legend: Estimate Systolic, Actual Systolic, Estimate Diastolic, Actual Diastolic
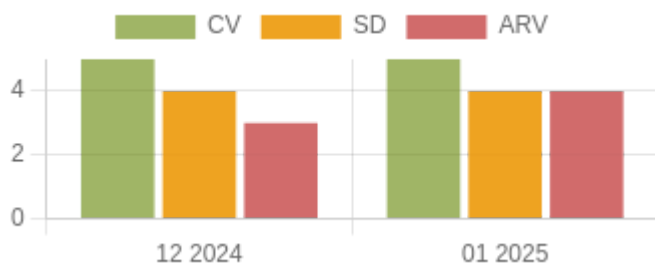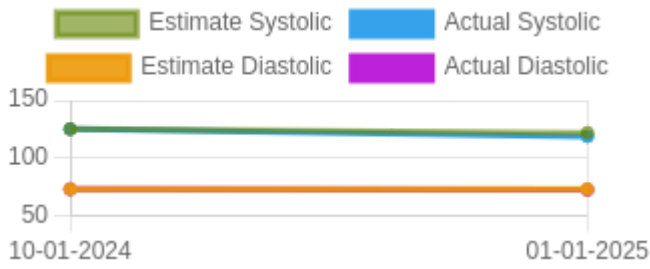
1. Mean(Arithmetic Mean) – Mean is the average of a set of numbers

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.
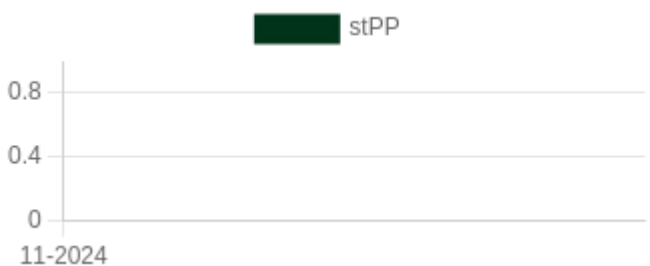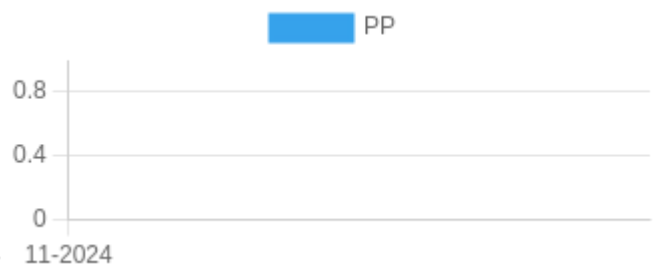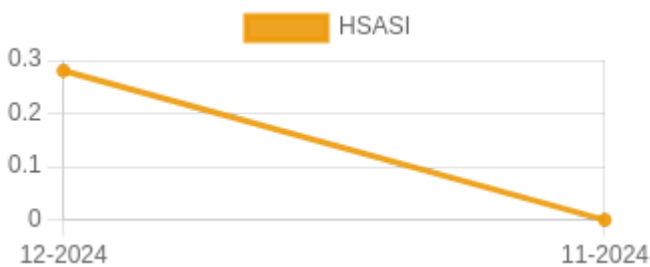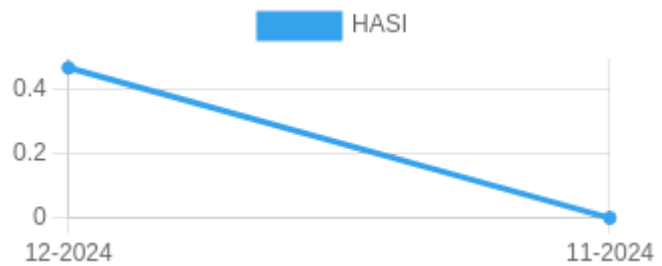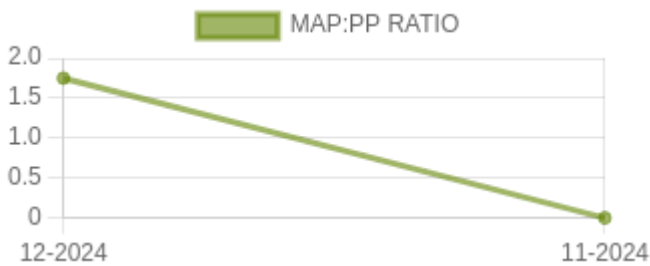
PSR

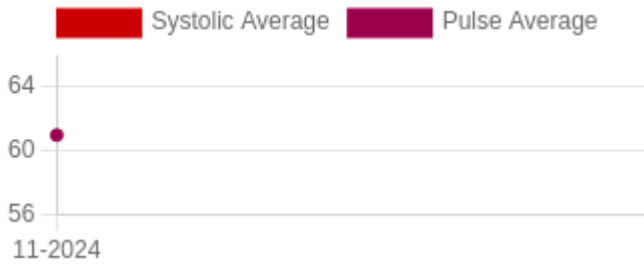**PSR:** Pulse stiffening ratio (PSR) is the ratio between systolic and diastolic stiffness. It can be expressed as PSR = [systolic stiffness]/[diastolic stiffness].

HbA1c Trends

Others Trends

Systolic Average | **Pulse Average**

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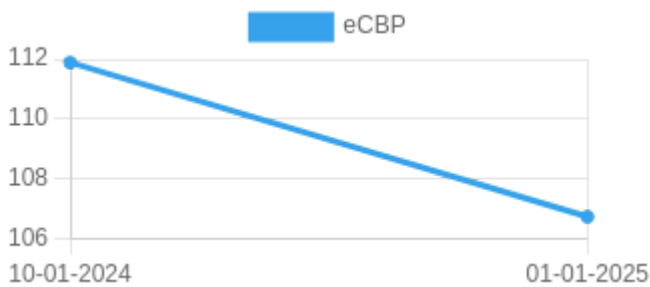
eCBP (Estimated Central Blood Pressure) normal range – 0 – 100 mmHg

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
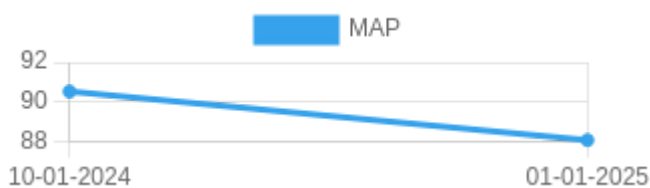
MAP -Mean arterial blood pressure. MAP = Diastolic blood pressure + 1/3(Systolic blood pressure – Diastolic blood pressure)

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 andother information they may potentially generate in the future to understand medication effects and patient management.

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