

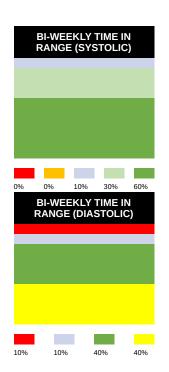


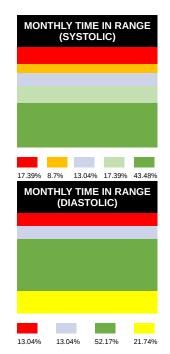
### 40 Mitchell Ave, Binghamton, NY 13903 Phone: (607) 723-1676

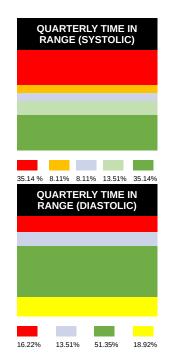
Patient Name: Kimberly Augustaitus

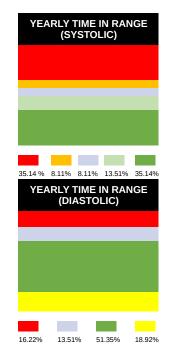
Height: 5.2

MRN #: 8352 Weight: 267 Birth Year: Hypertension: S1



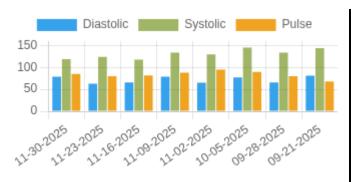






# **Blood Pressure Averages**

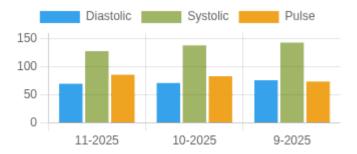
**Blood Pressure Averages: Weekly** 



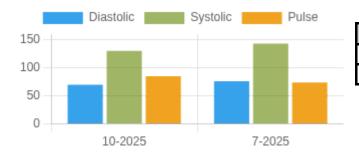
Week	Systolic(n)	Diastolic(n)	Pulse(n)
11-30-2025	119 (2)	79 (2)	85 (2)
11-23-2025	124 (5)	63 (5)	80 (5)
11-16-2025	118 (4)	66 (4)	82 (4)
11-09-2025	134 (8)	79 (8)	88 (8)
11-02-2025	130 (4)	65 (4)	95 (4)
10-05-2025	145 (4)	77 (4)	90 (4)
09-28-2025	134 (6)	66 (6)	80 (6)
09-21-2025	144 (4)	81 (4)	68 (4)

# **Blood Pressure Averages: Monthly**

Month-Year	Systolic(n)	Diastolic(n)	Pulse(n)
11-2025	128 (21)	70 (21)	86 (21)
10-2025	138 (8)	71 (8)	83 (8)
9-2025	143 (6)	76 (6)	74 (6)

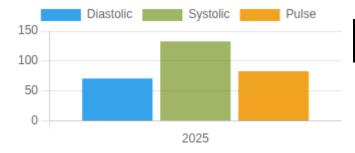


# **Blood Pressure Averages: Quarterly**



Quarter-Year Systolic(n)		Diastolic(n)	Pulse(n)
10-2025	130 (29)	70 (29)	85 (29)
7-2025	143 (6)	76 (6)	74 (6)

# **Blood Pressure Averages: Yearly**



Year	Systolic(n)	Diastolic(n)	Pulse(n)
2025	133 (35)	71 (35)	83 (35)

## Chat

Sender	Receiver	Messege	Date&Time
Amy Burpee , MS,RD,CDE	Kimberly Augustaitus	Great news!! It is not uncommon to see a decrease in your blood pressure due to the mechanism of the medication!!!	02-12-2025
Kimberly Augustaitus	R.A. Ramanujan , M.D.	Hello, happy Monday evening. I just wanted to let you know I did my shot yesterday and felt no pain. Also I am having no side effects from the shot. One thing I have noticed is my blood pressure is coming down. Have a great week. See you December 8th. ~Kimberly	01-12-2025
R.A. Ramanujan , M.D.	Kimberly Augustaitus	Happy Thanksgiving!	26-11-2025
Amy Burpee , MS,RD,CDE	Kimberly Augustaitus	Wonderful news! Enjoy your Thanksgiving as well!!	25-11-2025
Kimberly Augustaitus	R.A. Ramanujan , M.D.	good morning just wanted to give you an update how I'm doing with the Wegovy. I feel absolutely fine and I'm having no stomach problems, discomfort, or trouble going to the bathroom. Thank you and I hope you all have a wonderful Thanksgiving. ~ Kimberly	25-11-2025
Kimberly Augustaitus	R.A. Ramanujan , M.D.	Thank you.	24-11-2025
null Lexi Matthias, LPN	Kimberly Augustaitus	HI KIMBERLY, DR RAM INTENDED FOR YOU TO TAKE 137MCG. BUT HE SAID DONT THROW AWAY THE 175MCG PRESCRIPTION. HE WILL LET YOU KNOW HOW TO SAFELY TAKE THEM WHEN YOU RUN OUT OF 137. LEXI	24-11-2025

Kimberly Augustaitus	R.A. Ramanujan , M.D.	Good morning, my husband picked up my thyroid medicine from the pharmacy yesterday. He came home with two bottles of different strength medicine. One bottle is 175 MCG and the other is 137 MCG. Which one does Dr. Ramanujan me to take each day?	24-11-2025
Kimberly Augustaitus	R.A. Ramanujan , M.D.	Thank you. Hope you have a good weekend	22-11-2025
R.A. Ramanujan , M.D.	Kimberly Augustaitus	Rx sent	22-11-2025
Kimberly Augustaitus	R.A. Ramanujan , M.D.	Oh, right.	22-11-2025
R.A. Ramanujan , M.D.	Kimberly Augustaitus	your tablet dose was 137 mcg daily and on SUN 137 + 68 =205 mcg.	22-11-2025
Kimberly Augustaitus	R.A. Ramanujan , M.D.	This was what Dr. Gurdeep Singh had me on.	22-11-2025
Kimberly Augustaitus	R.A. Ramanujan , M.D.		22-11-2025
R.A. Ramanujan , M.D.	Kimberly Augustaitus	It comes in 150, 175, 200 & 300?	22-11-2025
Kimberly Augustaitus	R.A. Ramanujan , M.D.	hey, my last dosage of Levi thyroxine was 187 mcg	22-11-2025

## **Systolic Variability Trends**

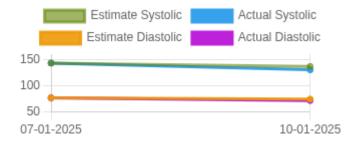


- 1. CV –The coefficient of variation (CV) is the ratio of the standard deviation to the mean. The higher the coefficient of variation, the greater the level of dispersion around the mean, Units = mmHg.
- 2. ARV Average real variability (ARV) is a method for measuring short-term, reading-to-reading,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

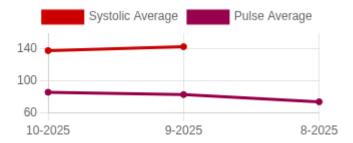


PSR: Pulse stiffening ratio (PSR) is the ratio between systolic and diastolic stiffness. It can be expressed as PSR = [systolic stiffness]/[diastolic stiffness].

## **HbA1c Trends**

### **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 = 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.

#### DCRP.

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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