

NCCU CLINICAL GUIDELINES  
SECTION: 14

NEONATAL CARDIAC CONDITIONS:

MEDICAL AND SURGICAL MANAGEMENT

Section 14 Neonatal cardiac conditions  
Appendix A – Normal Blood Pressure Values  
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Neonatology Clinical Guidelines  
King Edward Memorial/Princess Margaret Hospitals  
Perth Western Australia  
Authorisation and review by Neonatal Coordinating Group

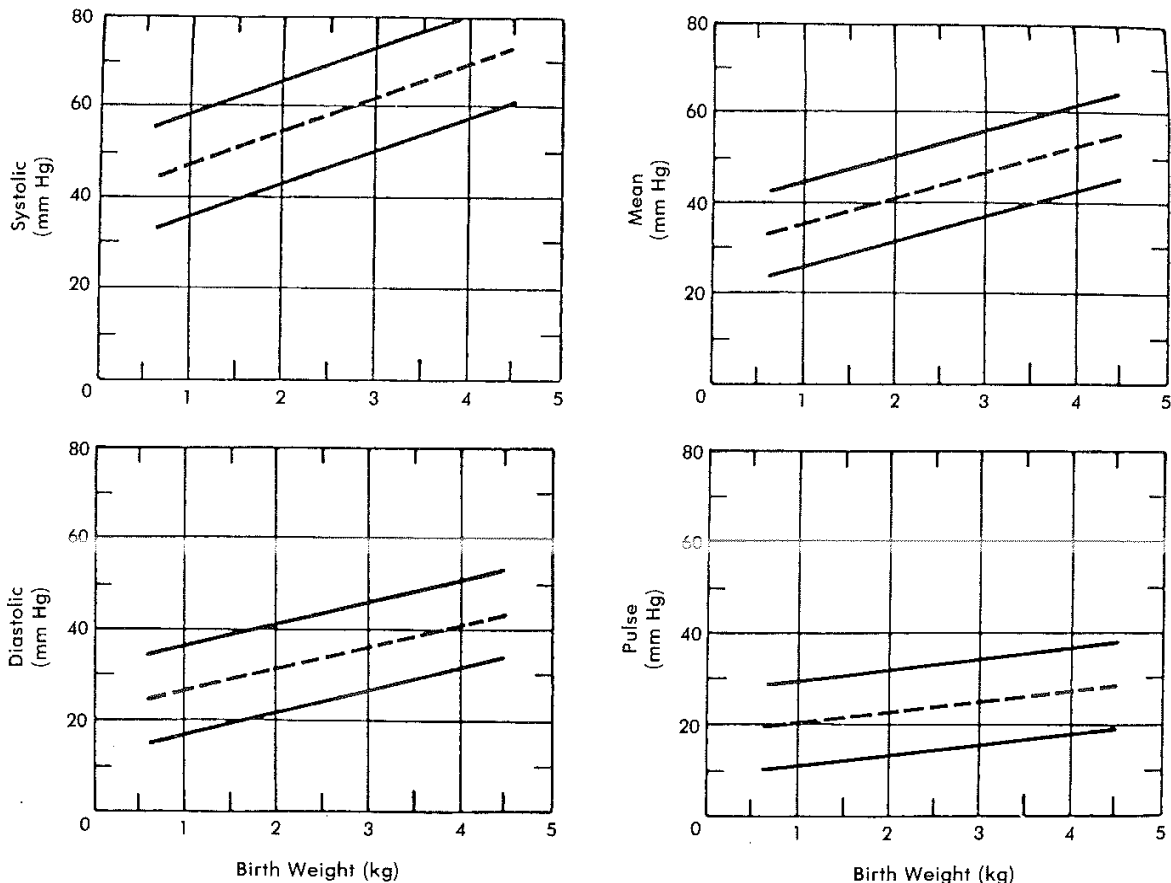
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**APPENDIX A – NORMAL BLOOD PRESSURE VALUES**

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- [MEAN SYSTOLIC, DIASTOLIC AND MEAN AORTIC BP AND MEAN PULSE BY BW FIRST 12 HOURS OF LIFE](#)
- [BLOOD PRESSURE RANGES IN PRETERM INFANTS BY WEIGHT DURING THE FIRST HOURS OF LIFE](#)
- [MEAN SYSTOLIC AND DIASTOLIC BP BY GESTATIONAL AGE ON DAY 1 OF LIFE](#)
- [MEAN SYSTOLIC AND DIASTOLIC BP BY BIRTHWEIGHT ON DAY 1 OF LIFE](#)
- [MEAN SYSTOLIC AND DIASTOLIC BP BY POSTCONCEPTIONAL AGE IN WEEKS](#)
- [MEAN BLOOD PRESSURE BY GESTATIONAL AGE OVER THE 1ST 72 HOURS OF LIFE](#)
- [MEAN SYSTOLIC AND DIASTOLIC BLOOD PRESSURES BY GESTATIONAL AGE OVER THE 1ST 5 DAYS OF LIFE](#)
- [AGE-SPECIFIC PERCENTILES OF BLOOD PRESSURE MEASUREMENTS IN BOYS AND GIRLS BIRTH TO 12 MONTHS](#)

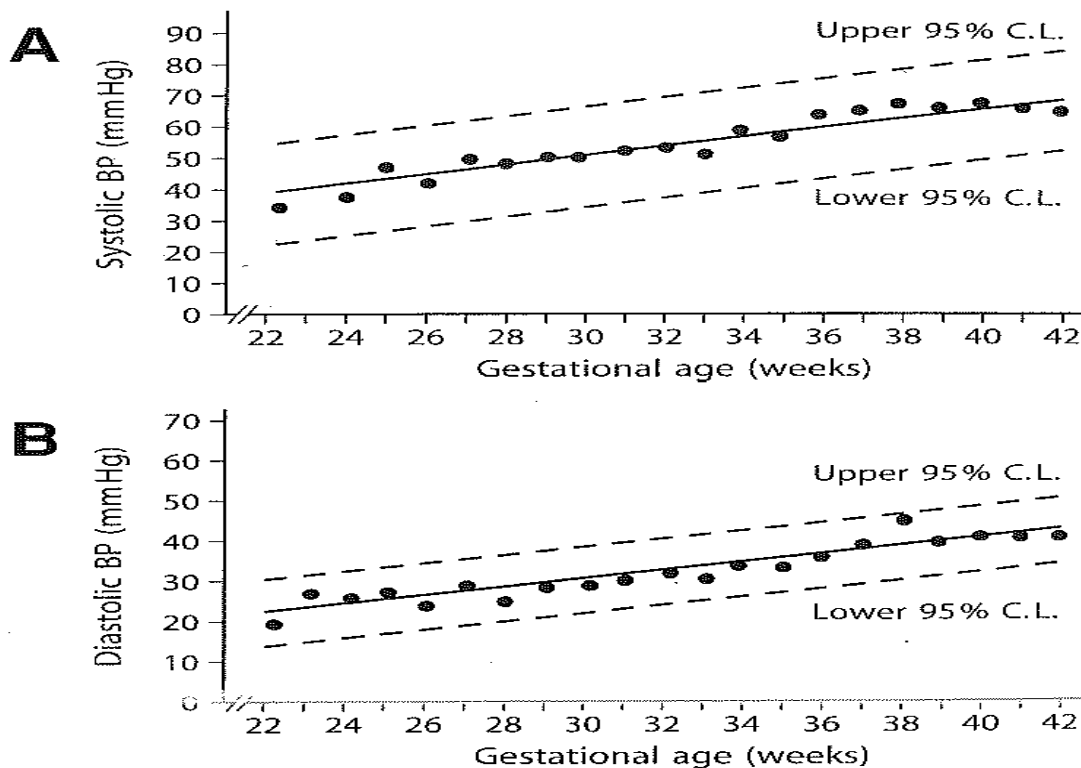
**MEAN SYSTOLIC, DIASTOLIC AND MEAN AORTIC BLOOD PRESSURES AND MEAN PULSE BY BIRTHWEIGHT DURING THE 1<sup>ST</sup> 12 HOURS OF LIFE (VERSMOLD ET AL)[1]**



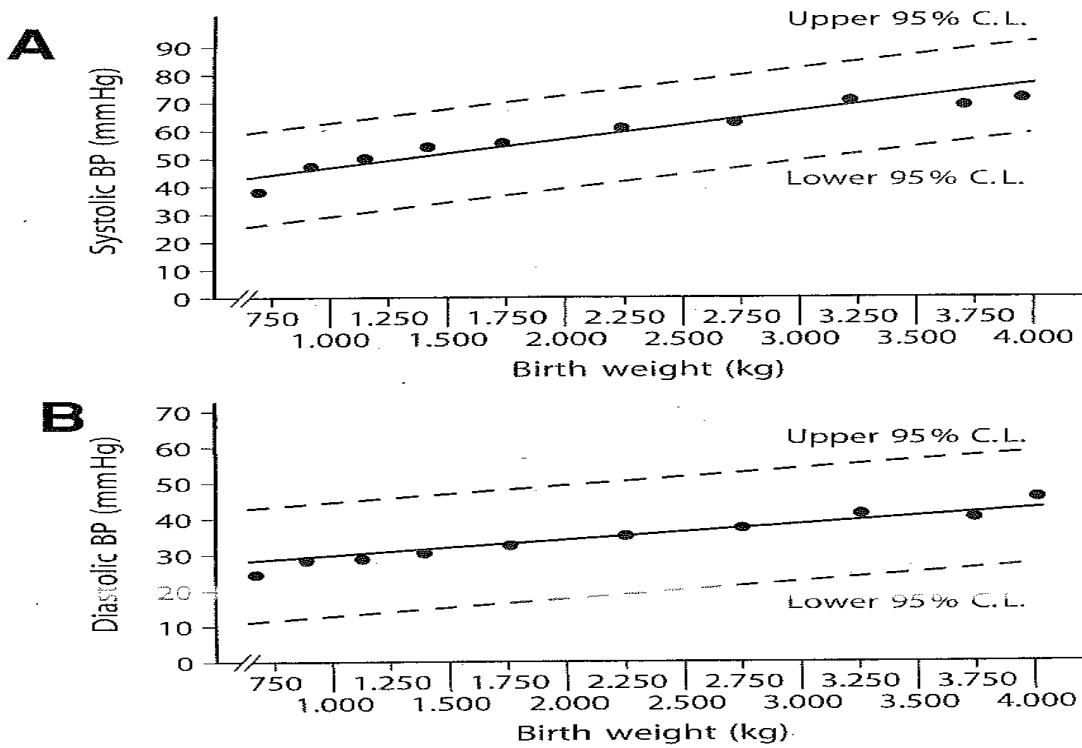
**BLOOD PRESSURE RANGES IN PRETERM INFANTS BY WEIGHT DURING THE FIRST HOURS OF LIFE (HEGYI ET AL)[2]:**

BIRTHWEIGHT (g)	n	SYSTOLIC (mm Hg)	DIASTOLIC (mm Hg)
501-750	18	50-62	26-36
751-1000	39	48-59	23-36
1001-1250	30	49-61	26-35
1251-1500	45	46-56	23-33
1501-1750	51	46-58	23-33
1751-2000	61	48-61	24-35

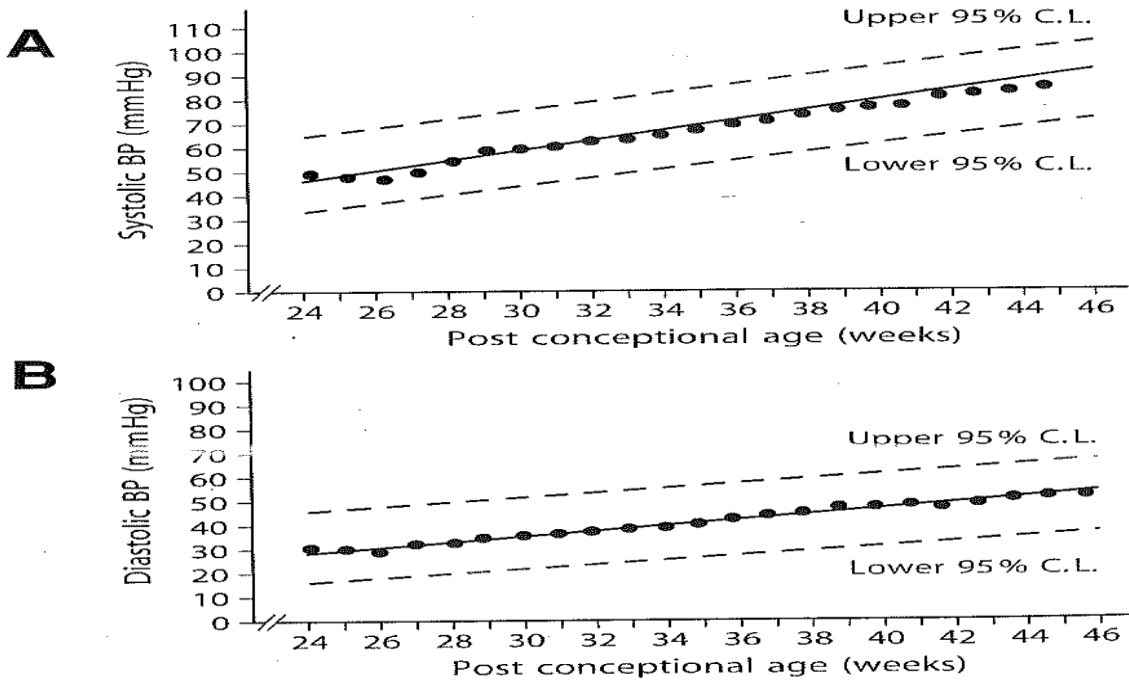
**MEAN SYSTOLIC (A) AND DIASTOLIC (B) BLOOD PRESSURES BY GESTATIONAL AGE ON DAY 1 OF LIFE (ZUBROW ET AL)[3]:**



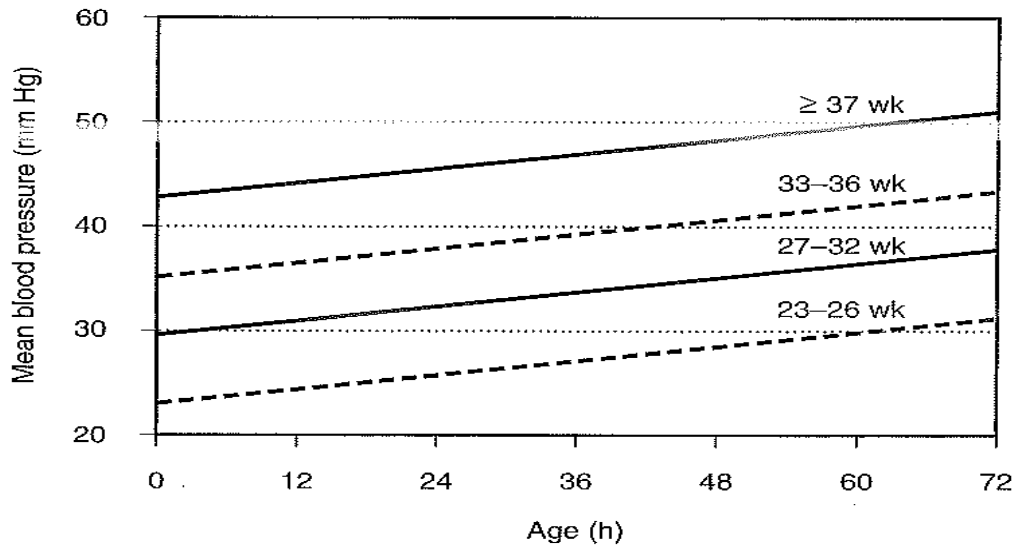
**MEAN SYSTOLIC (A) AND DIASTOLIC (B) BLOOD PRESSURES BY BIRTHWEIGHT ON DAY 1 OF LIFE (ZUBROW ET AL)[3]:**



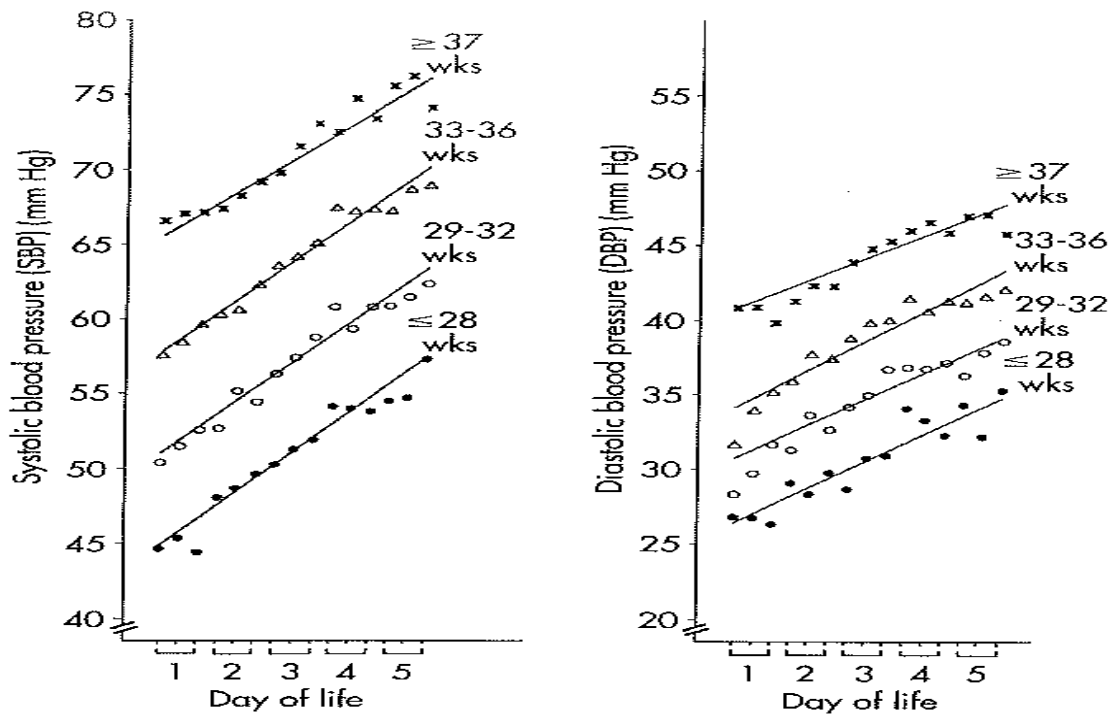
**MEAN SYSTOLIC (A) AND DIASTOLIC (B) BLOOD PRESSURES BY POSTCONCEPTIONAL AGE IN WEEKS (ZUBROW ET AL)[3]:**



**MEAN BLOOD PRESSURE BY GESTATIONAL AGE OVER THE 1<sup>ST</sup> 72 HOURS OF LIFE (NUNTNARUMIT ET AL)[4]:**

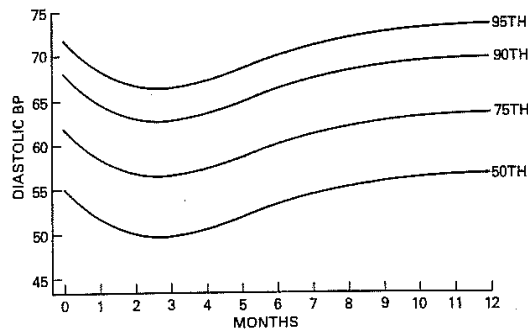
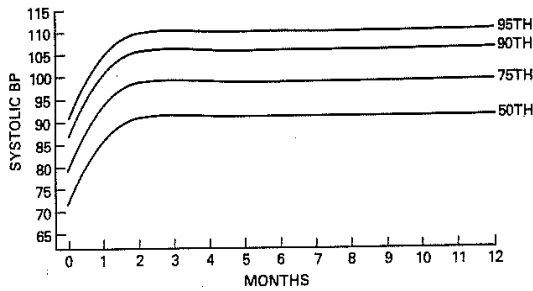


**MEAN SYSTOLIC AND DIASTOLIC BLOOD PRESSURES BY GESTATIONAL AGE OVER THE 1<sup>ST</sup> 5 DAYS OF LIFE (ZUBROW ET AL)[3]:**



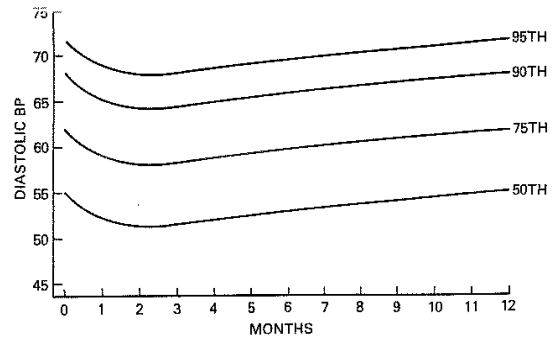
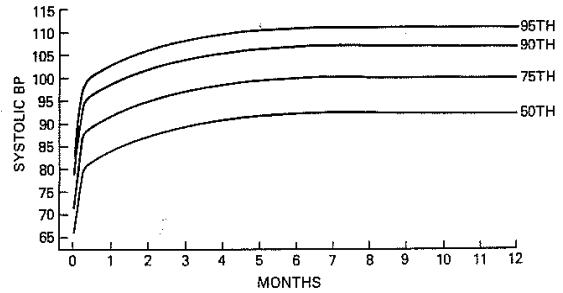
**AGE-SPECIFIC PERCENTILES OF BLOOD PRESSURE MEASUREMENTS IN BOYS (A) AND GIRLS (B) BIRTH TO 12 MONTHS (REPORT OF THE SECOND TASK FORCE ON BLOOD PRESSURE CONTROL IN CHILDREN—1987, PEDIATRICS VOL 79, 1987):**

**A AGE-SPECIFIC PERCENTILES OF BLOOD PRESSURE MEASUREMENTS IN BOYS BIRTH TO 12 MONTHS**



90TH PERCENTILE	87	101	106	106	106	105	105	105	105	105	105	105	105
SYSTOLIC BP	68	65	63	63	63	65	66	67	68	68	69	69	69
DIASTOLIC BP	51	49	48	48	48	50	51	52	53	54	55	56	56
HEIGHT CM	51	53	55	56	57	59	60	61	62	63	64	65	66
WEIGHT KG	4	4	5	5	5	6	6	7	7	8	8	9	9

**B AGE-SPECIFIC PERCENTILES OF BLOOD PRESSURE MEASUREMENTS IN GIRLS BIRTH TO 12 MONTHS**



90TH PERCENTILE	76	88	101	104	105	106	106	106	106	106	106	106	106
SYSTOLIC BP	68	65	64	64	65	66	66	66	66	67	67	67	67
DIASTOLIC BP	54	55	56	58	61	62	62	62	63	64	64	65	65
HEIGHT CM	54	55	56	58	61	62	62	62	63	64	64	65	65
WEIGHT KG	4	4	4	5	5	6	7	8	8	9	9	10	11

**REFERENCES**

1. Versmold, H.T., et al., *Aortic blood pressure during the first 12 hours of life in infants with birth weight 610 to 4,220 grams.* Pediatrics, 1981. **67**(5): p. 607-13.
2. Hegyi, T., et al., *Blood pressure ranges in premature infants. I. The first hours of life.* J Pediatr, 1994. **124**(4): p. 627-33.
3. Zubrow, A.B., et al., *Determinants of blood pressure in infants admitted to neonatal intensive care units: a prospective multicenter study.* Philadelphia Neonatal Blood Pressure Study Group. J Perinatol, 1995. **15**(6): p. 470-9.
4. Nuntnarumit, P., W. Yang, and H.S. Bada-Ellzey, *Blood pressure measurements in the newborn.* Clin Perinatol, 1999. **26**(4): p. 981-96, x.