

NEUROMUSCULAR MATURITY

	0	1	2	3	4	5
Posture						
Square Window (wrist)	90°	60°	45°	30°	0°	
Arm Recoil	180°		100°-180°	90°-100°	< 90°	
Popliteal Angle	180°	160°	130°	110°	90°	< 90°
Scarf Sign						
Heel to Ear						

PHYSICAL MATURITY

Skin	gelatinous red, transparent	smooth pink, visible veins	superficial peeling & /or rash few veins	cracking pale area rare veins	parchment deep cracking no vessels	leathery cracked wrinkled
Lanugo	none	abundant	thinning	bald areas.	mostly bald	
Plantar Creases	no crease	faint red marks	anterior transverse crease only	creases ant. 2/3	creases cover entire sole	
Breast	barely percept	flat areola no bud	stippled areola 1-2mm bud	raised areola 3-4 mm bud	full areola 5-10 mm bud	
Ear	pinna flat, stays folded	sl. curved pinna; soft with slow recoil	well-curv. pinna; soft but ready recoil	formed & firm with instant recoil	thick cartilage ear stiff	
Genitals	scrotum empty no rugae		testes descending, few rugae	testes down good rugae	testes pendulous deep rugae	
Genitals	prominent clitoris & labia minora		majora & minora equally prominent	majora large minora small	clitoris & minora completely covered	

MATURITY RATING

Score	Wks
5	26
10	28
15	30
20	32
25	34
30	36
35	38
40	40
45	42
50	44

NEONATAL EXAMINATION

Day of life: _____

Study No: _____

MEASUREMENTS:

Crown heel length: _____	Foot length: _____
Head circumference: _____	Crown length: _____
Chest circumference: _____	Abdominal circ.: _____

CONGENITAL ABNORMALITIES:

NEUROLOGICAL SIGNS: (Lasting > 1 day)

Irritable: Y / N	Excitable: Y / N
Lethargic: Y / N	Hypotonia: Y / N
Seizures: Time of Onset: _____	Duration: _____
Response to Rx: _____	

MEDICAL PROBLEMS:

Intra-cranial haemorrhage	Y / N
Hydrocephalus:	Y / N
Cerebral oedema:	Y / N
Pulmonary problems:	Y / N
Jaundice: Y / N	Bilirubin: _____
Sepsis: Y / N	_____
Cardiac failure: Y / N	_____
Hypoglycaemia: Y / N	_____
Oliguria: Y / N	_____
Haematuria: Y / N	_____
Bleeding at skin puncture sites:	Y / N
Blood in stools:	Y / N
Necrotising enterocolitis:	Y / N
Deranged autonomic function:	Y / N

BIOCHEMISTRY:.

Na: _____ K: _____ Ca: _____ Mg: _____

FEEDING:

Sucking: Good _ Average: _ Poor: _

Good feeding established: Y / N

CONFIDENTIAL

INFORMED CONSENT

I, agree to participate in this study which is an investigation of the relationship between growth and development of the baby before birth and subsequent progress in infancy and childhood.

I understand that I will be asked to assist in completion of a confidential questionnaire which will ask questions about my lifestyle and my medical history.

A shortened questionnaire will be provided for the father of the baby to complete.

On completion of the questionnaire I will be randomly allocated to one of two groups. If I am allocated to the 'Ultrasound only' group I will have an ultrasound scan performed at 18 weeks of pregnancy in order to be certain of the due date of my delivery. After this I will have regular antenatal care with further ultrasound examinations only as requested by my doctor.

If I am allocated to the 'Ultrasound and Doppler' group, I will have ultrasound examinations at 18, 24, 28, 34, and 38 weeks of pregnancy. At the same time, Doppler placental blood flow studies will be performed. These tests are entirely non-invasive and evidence shows that they are harmless both for me and for my baby. The results of these tests will be placed in my hospital notes and the doctors caring for me will be able to use the results for my management. Blood will be taken from me in the Ultrasound Department at 18 and 34 weeks of pregnancy. At delivery, a sample of blood will be taken from the placenta and the placenta will be examined.

Whichever group I am in, a paediatrician will examine my baby two days after birth. This examination will be entirely non-invasive and will take about 30 minutes. I will be given the results of this examination.

I understand that I will be contacted again when my baby is twelve months old for another routine examination by a paediatrician or child health nurse. This may be repeated when the child is 2, 3 and 5 years of age. Tests may be performed at these times on the blood samples taken earlier in the study. The results of these tests will be confidential.

I may withdraw from the study at any time without any effect on my medical care.

Signed:.....

Witness:.....

Date:.....