

Workbook : Embryological development of the lower limb.

This workbook has been designed to be used in conjunction with the course reading booklet. You are free to complete as few or as many of the tasks as you wish. The workbook can then be added to your CPD portfolio as evidence of your activity. It also provides room for you to reflect your thoughts in relation to this course and your learning experience.

Self-assessment : Section 1.

1	At what point does the primitive streak appear in the embryo?
2	What is gastrulation ? Briefly describe the events of this process.

3

The three germ layers are :

1.

2.

3.

For each germ layer, give the major tissues which arise from that layer.

4	When does limb bud development begin?
5	What is the role of the AER in limb bud development?

6	How does separation of the digits occur?
7	If digital separation does not occur, how might this present in the embryo?
8	When is ossification of the long bones complete ?

9	Describe how cutaneous innervation of the limb bud and subsequently the limb, occurs.
10	Thinking about your response to question 9, what clinical implications are there for neurological testing in the lower limb?

11	Describe how the vascular supply to the limb bud, and subsequently the limb, occurs.

Self-assessment : Section 2

1	Which is the most critical period during embryonic life for the development of the limbs, and why this period?
2	What is the difference between 'amelia' and 'meromelia' ?
3	List the usual causes of limb defects.

4

Define the following terms:

Brachydactyly

Polydactyly

Syndactyly

5

What do you understand by the terms 'clubfoot', or 'talipes equino varus' ?

6

Congenital dislocation of the hip occurs in approximately 1 in 1500 births.

What do you know about this condition, and how may it impact in the development of the limb and gait cycle in later life?

Reflection.

Take some time to think about the learning that you have completed using this course. Was it useful, was it interesting, was it applicable to your practice? Is there anything in particular you have gained from the course, and does it encourage you to alter your practice? Have you enjoyed it?

These are all questions you should ask yourself before you complete your reflective account below, as these are key points that you need to mention.

How much time have you spent completing this course?	
Did you complete the course on your own, or as part of a learning group?	

Your general reflective account :

Key Learning / Practice points (list up to 5) :

1.

2.

3.

4.

5.

If you feel you have any further comments to make about your learning, please use the space below.