ANATOMICAL CONSIDERATION
ANATOMICAL CONSIDERATIONS.

The small intestine extends from duodenal-jejunal junction to the ileocecal orifice which is situated in the right iliac fossa, where interumbilical and vertical planes intersect. Though a distance of 6" to 8" separates these two points, the gut steers a varying course of 20 feet between them.

The upper two fifths of free part of small gut are called jejunum and lower three fifth ileum. The jejunum has a greater digestive surface than ileum as its diameter is greater (4 cm.). Its spirally arranged folds of mucous membrane called plicae circulares are bigger and more closely packed and minute finger like projections of mucous membrane called villi are larger and more numerous.

The ileum has diameter of 2.5 cm. and its wall is thinner than that of jejunum. A few
circular folds are present in the upper part of ileum. For most part the ileum is situated in the hypogastric (Pubic) and pelvic regions. The terminal part of ileum usually lies in pelvis from which it ascends over right iliac fossa and ends by opening into the medial side of the junction of caecum and ascending colon.

The caecum is free and commonly lies in right iliac fossa below the inter-tubercular plane and lateral to the vertical plane. Its rounded lower free end commonly hangs over the pelvic brim. Its average axial dimension is about 6 cm, and its breadth is about 7.5 cm. It is large cul-de-sac continuous superiorly with ascending colon and at the point where one passes into the other, the ileum opens into the large intestine from the medial side.

Radiological anatomy of small bowel -

The mucosal pattern of the small intestine can not be seen without the introduction of positive contrast media usually barium sulphate. Although the the small bowel can be examined radiologically by various techniques but the following principles are
common to them all.

1- The small intestine should be demonstrated in continuity by a continuous column of barium sulphate mixture.

2- When an abnormality is detected, the bowel should be examined in erect as well as in supine positions.

3- Whenever possible the small bowel should be examined when distended.

4- Overlapping coils should be separated by applying local abdominal and general compression.

Conventional barium meal follow through examination -

The aim of the examination is to outline the small intestine throughout its length by continuous column of barium. The main principles are as follows:

1- Enough barium sulphate suspension should be given to outline the small bowel as there to be some in stomach throughout examination.

2- During the whole of the examination, except during fluoroscopy, the patient should be in right lateral position.
1- The rate of gastric emptying can be assessed during preliminary fluoroscopy and films taken at intervals determined by this and by particular reason for the examination.
Photo No 1 - A diagramatic illustration of normal anatomy of small bowel and caecum.

Photo No 2 - Showing normal barium meal follow through examination for ileocecal region.