# CASE 1: GUT STUFF AND BUTT STUFF

**A 17-year-old boy visits his general practitioner complaining of abdominal pain.**

1. **For RLQ pain, give some differentials for each system below.**

|  |  |
| --- | --- |
| **Gastrointestinal** |  |
| **Gynaecological** |  |
| **Urological** |  |

1. **If the pain localised to the RUQ, what would your differentials be?**
2. **If the patient’s stool is positive for blood, what would your differentials be?**
3. **On further questioning, your patient reveals that he has a 4-month history of passing watery diarrhoea, up to 5 times a day. He occasionally passes mucus mixed with his stool and reports to have lost approximately 10kg in weight. He is referred for an endoscopy and biopsy which shows evidence of granuloma formation. What is the most likely diagnosis?**
4. Coeliac disease
5. Crohn’s disease
6. Irritable bowel syndrome
7. Ulcerative colitis
8. **Inflammatory bowel disease can be classified into ulcerative colitis and Crohns disease. Fill in the following table:**

|  |  |  |
| --- | --- | --- |
|  | **Ulcerative colitis** | **Crohn disease** |
| Wall involvement |  |  |
| Location |  |  |
| Gross appearance |  |  |
| Effect of smoking |  |  |
| Intestinal complications |  |  |

# CASE 2: DO YOU EVEN LFT BRO?

NB. things in brackets are low yield but are useful in understanding/remembering how things work. Quick rundown of liver enzymes:

|  |  |
| --- | --- |
| Liver enzyme | Becomes elevated when… |
| AST | Elevated in alcohol injury (aspartate aminotransferase is a mitochondrial enzyme and alcohol is a mitochondrial toxin, hence, alcohol kills mitochondria causing the release of AST into the blood) |
| ALT | Elevated in **alcohol injury** (aspartate aminotransferase is a mitochondrial enzyme and alcohol is a mitochondrial toxin, hence, alcohol kills mitochondria causing the release of AST into the blood) |
| ALP | Found in **bone and liver disease**  Decreased bile flow will result in decreased excretion which will then cause ALP to be released into the blood  In periods of bone growth, there will be increased osteoblastic activity which causes elevated ALP (ALP creates an alkaline environment under which osteoblastic activity occurs) |
| GGT | Think of it as useful in **differentiating bone and liver disease** if ALP is elevated  Especially elevated in **bile duct** pathology and in **alcoholics**  Can be elevated in a lot of things |
| Conjugated bilirubin | High levels of **unconjugated** bilirubin indicate that there are issues at the level of the liver since it can’t conjugate |
| Unconjugated bilirubin | High levels of **conjugated** bilirubin indicate that there is a blockage in the biliary tree since it can’t be excreted into the duodenum |

1. **What changes in liver enzymes would you expect to see in a patient with:**
   1. **Alcoholic hepatitis?**
   2. **Obstruction of the common bile duct?**
   3. **Advanced cirrhosis of liver?**
   4. **Viral hepatitis?**
2. **Explain the mechanisms for the following in advanced liver disease:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Finding in liver disease** | **What it is caused by** | **Mechanism** | **Name another**  **cause for this**  **finding** |
| Oedema |  |  |  |
| Elevated prothrombin time |  |  |  |
| Confusion |  |  |  |
| Gynaecomastia |  |  |  |

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