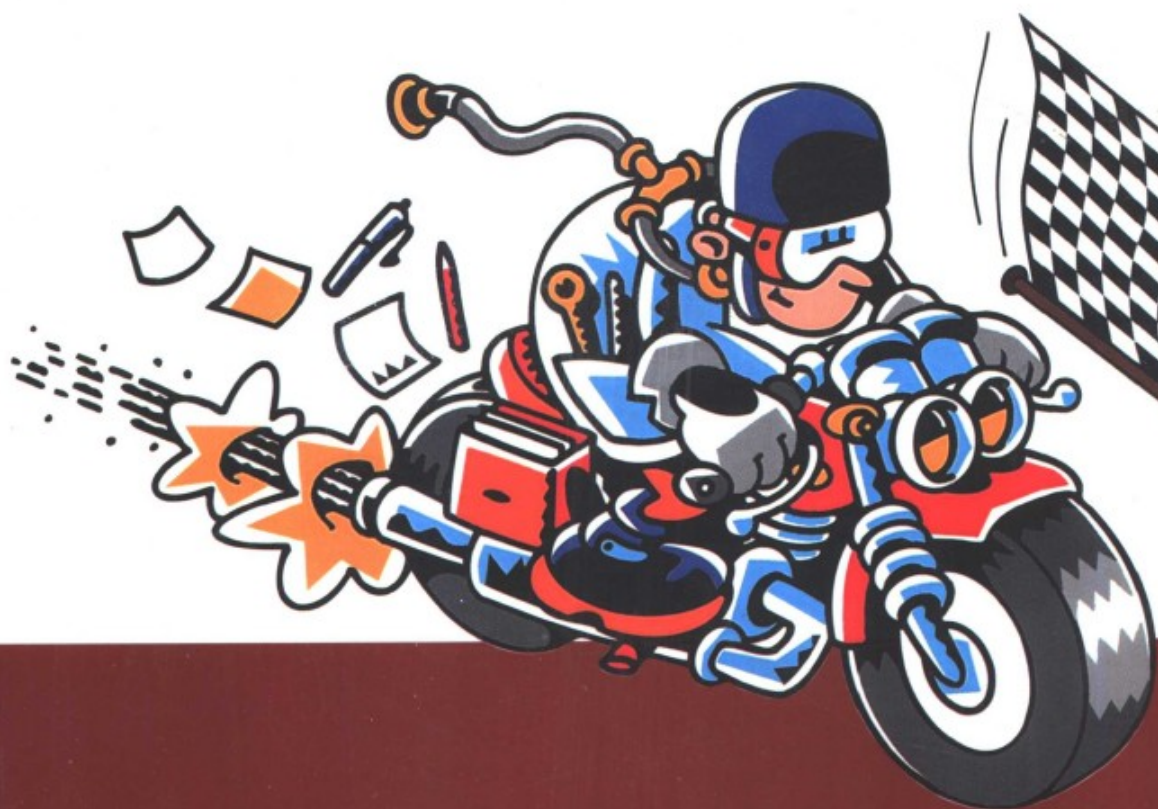


风暴式医学教程 *MOSBY'S CRASH COURSE* (原版英文医学教程)

# 胃肠病学

## *Gastroenterology*

Emma Lam © Martin Lombard  
with Wilfred Yeo Series Editor



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Mosby's Crash Course

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Gastroenterology

Emma Lam © Martin Lombard  
*with Wilfred Yeo as Series Editor*

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Harcourt Asia

Mosby

2002

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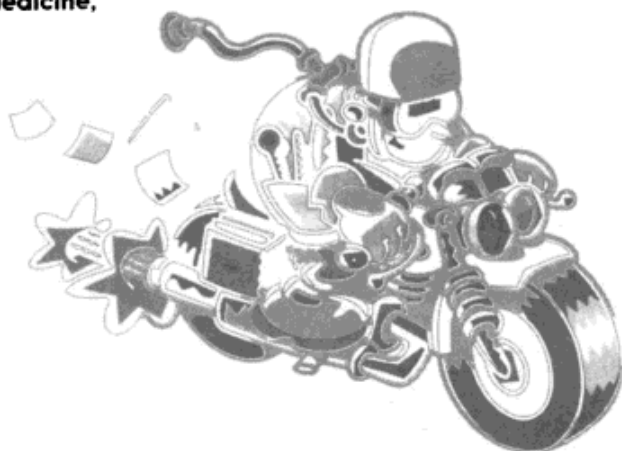
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**Series editor**  
**Wilfred Yeo**

BMedSci, MB, ChB, MD, MRCP  
Senior Lecturer in Medicine,  
Medicine/Clinical  
Pharmacology and  
Therapeutics,  
University of  
Sheffield



# Gastroenterology

**Emma Lam**

BSc (Hons), MB ChB, MRCP (UK)  
Specialist Registrar  
Llandough Hospital  
Cardiff

**Martin Lombard**

MD, MSc, FRCPI, FRCP (Lond)  
Consultant Physician and  
Gastroenterologist  
Royal Liverpool University  
Hospital,  
and  
Senior Lecturer in Medicine,  
University of Liverpool,  
Liverpool

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# Preface

Having recently been through the system of medical school and MRCP (and revising at my desk until the early hours of the morning) I know what an enormous help a concise and well illustrated text can be! This book is primarily aimed at undergraduates who are revising for their exams, but it can serve as an aide-mémoire for house officers and other medically related professionals. Those preparing for MRCP will also find it useful as an overview of gastroenterology. However you use it, enjoy it—if only this book had been around when I was doing my exams!

**Emma Lam**

Despite their best intentions and notice of timetables, all students find that exams come too soon. *Crash Course* is written by people who've been there for people who are getting there! The clinical series is largely written by young doctors in training who have recently passed their exams and who know what you need to know to pass and excel in your exam. This book on gastroenterology tells you that, but I hope is comprehensive enough to give you even more—a good grounding in gastroenterology. It may therefore prove useful as a brief reference for forgotten facts even for those not doing exams. It doesn't pretend to give all of the detail required to practice gastroenterology, but should be used as a primer for those starting out in a career in gastroenterology and as a crash course for those coming up to examinations. The illustrations in this book pack in thousands more words than we could in the text and I hope you will enjoy learning from them.

**Martin Lombard**



# Preface

So you have an exam in medicine and you don't know where to start? The answer is easy—start with *Crash Course*. Medicine is fun to learn if you can bring it to life with patients who need their problems solving. Conventional medical textbooks are written back-to-front, starting with the diagnosis and then describing the disease. This is because medicine evolved by careful observations and descriptions of individual diseases for which, until this century, there was no treatment. Modern medicine is about problem solving, learning methods to find the right path through the differential diagnosis, and offering treatment promptly.

This series of books has been designed to help you solve common medical problems by starting with the patient and extracting the salient points in the history, examination, and investigations. Part II gives you essential information on the physical examination and investigations as seen through the eyes of practising doctors in their specialty. Once the diagnosis is made, you can refer to Part III to confirm that the diagnosis is correct and get advice regarding treatment.

Throughout the series we have included informative diagrams and hints and tips boxes to simplify your learning. The books are meant as revision tools, but are comprehensive, accurate, and well balanced and should enable you to learn each subject well. To check that you did learn something from the book (rather than just flashing it in front of your eyes!), we have added a self-assessment section in the usual format of most medical exams—multiple-choice and short-answer questions (with answers), and patient management problems for self-directed learning. Good luck!

**Wilf Yeo**  
**Series Editor (Clinical)**





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Grateful thanks to the following at Royal Liverpool University hospital for their helpful contributions and comments to this book: Dr Conall Garvey, Consultant Radiologist for all of the radiology pictures; Dr Fiona Campbell, Consultant Pathologist for all of the histology photomicrographs, and Tracy Norris for the graphs of oesophageal manometry and pH. We each would also like to thank our mentors and students respectively for all that they have taught us.



# Dedication

*Dedicated to the memory of my father.*

*E.L.*



# Contents

<b>Preface</b>	iii	
<b>Acknowledgements</b>	vii	
<b>Dedication</b>	ix	
<b>Part I: The Patient Presents With</b>	<b>1</b>	
<b>1. Indigestion</b>	<b>3</b>	
History of the patient with indigestion	3	
Examining the patient with indigestion	5	
Investigating indigestion	6	
<b>2. Swallowing Problems</b>	<b>9</b>	
Differential diagnosis	9	
History of the patient with swallowing problems	9	
Examining the patient with swallowing problems	11	
Investigating swallowing problems	11	
<b>3. Acute Abdominal Pain</b>	<b>15</b>	
History of the patient with acute abdominal pain	15	
Examining the patient with acute abdominal pain	16	
Investigating acute abdominal pain	17	
<b>4. Chronic Abdominal Pain</b>	<b>21</b>	
History of the patient with chronic abdominal pain	21	
Examining the patient with chronic abdominal pain	22	
Investigating chronic abdominal pain	22	
<b>5. Abdominal Distension</b>	<b>25</b>	
History of the patient with abdominal distension	25	
Examining the patient with abdominal distension	25	
Investigating abdominal distension	26	
<b>6. Weight Loss and Anorexia</b>	<b>29</b>	
History of the patient with weight loss	29	
Examining the patient with weight loss	29	
Investigating weight loss	30	
<b>7. Vomiting</b>	<b>33</b>	
History and differential diagnosis of vomiting	33	
Examining the patient with vomiting problems	34	
Investigating vomiting problems	34	
<b>8. Haematemesis and Melaena</b>	<b>37</b>	
History of the patient with haematemesis	37	
Examining the patient with haematemesis	38	
Investigating haematemesis	38	
<b>9. Diarrhoea</b>	<b>41</b>	
History of the patient with diarrhoea	41	
Examining the patient with diarrhoea	42	
Investigating diarrhoea	42	
<b>10. Rectal Bleeding</b>	<b>45</b>	
History of the patient with rectal bleeding	45	
Examining the patient with rectal bleeding	45	
Investigating rectal bleeding	46	
<b>11. Anaemia</b>	<b>47</b>	
History of the patient with anaemia	47	
Examining the patient with anaemia	48	
Investigating anaemia	49	
<b>12. Jaundice</b>	<b>51</b>	
History of the patient with jaundice	51	
Examining the patient with jaundice	52	
Investigating jaundice	52	
<b>13. Abnormal Liver Biochemistry</b>	<b>55</b>	
History of the patient with abnormal liver biochemistry	55	
Examining the patient with abnormal liver biochemistry	55	
Investigating abnormal liver biochemistry	56	
<b>Part II: History, Examination, and Common Investigations</b>	<b>52</b>	
<b>14. Taking a History</b>	<b>61</b>	
The standard structure of a history	61	
<b>15. Examination of the Patient</b>	<b>65</b>	
Face	65	
Hands	66	
Neck, thorax, and upper limbs	67	
Lower limb	68	
Back	68	
Abdominal examination	68	
Rectal examination	70	
Rectal examination technique	70	



# Contents

<b>16. Writing Up A Medical Clerking</b>	<b>73</b>	<b>21. Colon</b>	<b>135</b>
Purpose	73	Anatomy, physiology, and function of the colon and rectum	135
Structure	73	Functional disorders	135
Illustration	73	Inflammatory bowel disease	137
Formulating a differential diagnosis	74	Neoplastic disorders	141
Investigation	74	Anorectal conditions	145
Continuity	74	Infections	148
Sample medical clerking	74		
<b>17. Common Investigations</b>	<b>77</b>	<b>22. Liver</b>	<b>151</b>
Routine investigations	77	Structure and function of the liver	151
Biochemistry	79	Hyperbilirubinaemias	151
Endocrine and metabolic tests	79	Viral hepatitis	153
Liver enzymes and liver function tests	81	Other infections involving the liver	159
Liver biopsy	83	Metabolic and genetic liver disease	160
Tests of pancreatic function	84	Chronic liver disease	163
Breath tests	84	Cirrhosis	169
Motility physiology	85	Tumours of the liver	175
Serology tests	86	Drugs and the liver	176
Genetic markers	88	Liver abscesses	179
Imaging	89	Parasitic infection of the liver	180
		Polycystic liver syndromes	182
<b>Part III: Diseases and Disorders</b>	<b>141</b>	<b>23. Biliary Tract</b>	<b>183</b>
<b>18. Oesophagus</b>	<b>99</b>	Anatomy, physiology, and function of the hepatobiliary system	183
Anatomy, physiology, and function of the oesophagus	99	Gallstones	183
Inflammatory conditions	99	Tumours of the biliary tract	187
Neoplasia	103	Benign anatomical bile duct problems	188
Anatomical and functional problems	106	Infections of the biliary tract	189
<b>19. Stomach</b>	<b>109</b>	<b>24. Pancreas</b>	<b>191</b>
Anatomy, physiology, and function of the stomach	109	Anatomy, physiology, and function of the pancreas	191
Acute gastritis	109	Acute pancreatitis	191
Peptic ulcer disease	111	Chronic pancreatitis	193
Neoplasia of the stomach	115	Pseudocysts	194
Functional and anatomical problems	118	Cystic fibrosis	195
Postgastric surgery complications	119	Tumours of the pancreas	195
<b>20. Small Intestine</b>	<b>123</b>	<b>Part IV: Self-assessment</b>	<b>199</b>
Anatomy, physiology, and function of the small intestine	123	Multiple-choice Questions	201
Immune-related problems	124	Short-answer Questions	206
Neoplastic problems	128	Essay Questions	208
Infections	130	MCQ Answers	209
		SAQ Answers	210
		<b>Index</b>	<b>213</b>



## **THE PATIENT PRESENTS WITH...**

<b>1. Indigestion</b>	<b>3</b>	<b>8. Haematemesis and Melaena</b>	<b>37</b>
<b>2. Swallowing Problems</b>	<b>9</b>	<b>9. Diarrhoea</b>	<b>41</b>
<b>3. Acute Abdominal Pain</b>	<b>15</b>	<b>10. Rectal Bleeding</b>	<b>45</b>
<b>4. Chronic Abdominal Pain</b>	<b>21</b>	<b>11. Anaemia</b>	<b>47</b>
<b>5. Abdominal Distension</b>	<b>25</b>	<b>12. Jaundice</b>	<b>51</b>
<b>6. Weight Loss and Anorexia</b>	<b>29</b>	<b>13. Abnormal Liver Biochemistry</b>	<b>55</b>
<b>7. Vomiting</b>	<b>33</b>		





# 1. Indigestion

'Indigestion' encompasses a vast number of symptoms representing upper digestive problems with which a patient may present. These include:

- Heartburn.
- Fullness.
- Early satiety.
- Upper abdominal pain or ache.
- Flatulence.
- Hiccups.
- Belching.

The generic term that is useful to describe this constellation of symptoms is dyspepsia.

Dyspepsia:

- Is very common and occurs in up to 10% of the adult population. At least half of these 10% seek advice from their family doctor.
- Accounts for 40% of referrals to gastroenterology units.

Dysphagia, or difficulty in swallowing, is dealt with separately.

## HISTORY OF THE PATIENT WITH INDIGESTION

When taking a history from a patient with dyspepsia, it is useful to classify the problem according to the group of symptoms present, although this does not always correlate with the pathology. Dyspepsia is characterized as:

- 'Reflux-like', if heartburn or chest pain predominate.
- 'Ulcer-like', if the characteristics convey the impression of peptic ulcer disease. This is confirmed by the presence of *Helicobacter pylori* in the gastric antrum (see Chapter 19).
- 'Non-ulcer dyspepsia', this describes similar symptoms in the absence of *H. pylori*.

### History of heartburn

Heartburn is the key to differentiating reflux-like dyspepsia from other forms. It is described as a burning

sensation which the patient locates retrosternally (behind the sternum). It is a diffuse and poorly localized sensation, typically worse on lying and leaning forward.

### Excess saliva

'Waterbrash' is a specific phenomenon which the patient will describe as a flood of saliva in the mouth. Excess saliva is produced in the mouth and pharynx as a reflex response to acid in the lower oesophagus.

### Chest pain

This is a common feature of gastro-oesophageal reflux.

Pain due to heartburn often radiates between the shoulder blades. Oesophageal spasm more commonly causes chest pain, which occurs after a meal but can arise spontaneously. The pain is:

- Typically over the sternum.
- Often severe.
- Sometimes described as 'something squeezing my inside'.

This pain is often confused with cardiac chest pain and, more confusingly, nitrates will relieve both spasm and



Oesophageal spasm tends not to be exercise-related. However, radiation of the pain to the jaw and left shoulder/arm can occur in severe cases, similar to cardiac pain. Change in severity of the pain in relation to body position is a helpful clue, since reflux symptoms will worsen when lying flat (e.g. in bed) or stooping forward (i.e. to pick something off the floor), and can be relieved when the patient sits or stands upright. Nausea or vomiting is unusual with reflux, but not uncommon with myocardial infarction.



angina, making it a diagnostic conundrum.

Other common causes of oesophageal spasm are:

- Underlying acid reflux.
- Achalasia.

A history of either condition should raise suspicion in someone presenting with atypical chest pain.

Other causes of chest pain are usually easy to differentiate. Pain due to pulmonary disease is more often sharp or stabbing like a knife-cut, and is referred to as pleuritic. It is worse when breathing deeply, which does not have an effect on oesophageal pain.

### Nocturnal cough/asthma

Some patients with severe acid reflux do not complain of heartburn or chest pain, but develop cough or wheeze during the night when they are lying flat. They often lack symptoms during the daytime. Characteristically, they will demonstrate a 'morning dip' in their peak-flow recordings (Fig. 1.1). The bronchospasm is thought to be due to microaspiration of acid, but a vagal reflex may also be involved because experimentally, oesophageal acid-induced bronchospasm is ablated by vagotomy.

Asthmatics have a higher than average prevalence of heartburn. Increased intra-abdominal pressure may play a role, but some drugs such as theophylline also lower the sphincter tone.

### Aggravating and risk factors for reflux

The most important risk factor is increased intra-abdominal pressure (Fig. 1.2) which can 'squeeze' the stomach contents upwards and, ultimately, squeeze the stomach itself through the hiatus in the diaphragm (hiatus hernia).

Ask about lifestyle habits and medication as:

- Stooping and bending (occupation or sport) aggravate the problem.
- Certain foods, especially those with a high fat content or that are spicy, often aggravate the problem.
- Alcohol ingestion can result in increased acid output, delayed gastric emptying, and gastritis.
- Cigarettes often make reflux symptoms worse: nicotine causes smooth muscle relaxation in the lower oesophageal sphincter.
- Non-steroidal anti-inflammatory drug (NSAID) ingestion can interfere with prostaglandin cytoprotection.

- Caffeine and theophylline cause relaxation of the lower oesophageal sphincter.
- Neuroleptic drugs have an anticholinergic action which also lowers oesophageal tone.

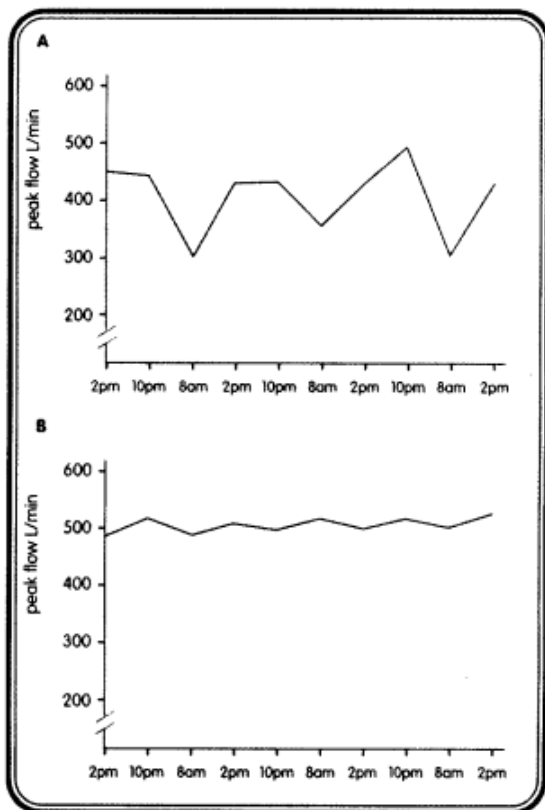


Fig. 1.1 (A) Peak flow measurement in an asthmatic demonstrating 'morning dip' due to acid reflux. (B) This was ablated when the patient took antisecretory medication before going to bed.

Risk factors for gastro-oesophageal reflux	
pregnancy	
alcohol	
obesity	
cigarette smoking	
increased intra-abdominal pressure:	
• sport e.g. weight lifting	
• occupation e.g. stooping	
• asthma	

Fig. 1.2 Risk factors for gastro-oesophageal reflux





**A long history of heartburn followed by difficulty in swallowing (dysphagia), but improvement in the heartburn may herald a fibrotic stricture in the lower oesophagus.**

Most patients that present with heartburn/reflux symptoms will have tried antacids at some point; these will often provide some form of relief.

All of these dyspeptic symptoms constitute 'gastro-oesophageal reflux disease' sometimes abbreviated as GORD.

### Epigastric pain

Epigastric pain is not a feature of GORD, but characterizes dyspepsia as 'ulcer-like'. It is a very common presenting complaint, but:

- The history is often vague.
- Sometimes patients have difficulty ascribing the term 'pain' to what they feel. The pain is often described as 'gnawing' or a dull ache which never goes away.

Pain due to:

- Peptic ulcer disease is occasionally more easily localized. The patient may point to a spot with one finger, although this is not a reliable sign.
- A gastric ulcer is often worse immediately after eating.

Duodenal ulcer pain is:

- Commonly relieved by antacids.
- Worse at night or in the fasted state, so the patient will often eat or drink milk before going to bed at night.

A family history is common. Find out about lifestyle habits such as smoking and drinking; these are important because they may contribute to gastritis.



**Peptic ulcers associated with NSAID use are usually painless and often present with occult bleeding.**

Medication such as NSAIDs can also cause gastritis, erosions, and ulcers.

Epigastric pain presenting with weight loss may indicate gastric carcinoma and warrants urgent investigation.

### Flatulence, belching, bloating, early satiety

These symptoms are characteristically more vague. The term 'non-ulcer dyspepsia' is used to account for symptoms that occur in the absence of demonstrable acid reflux or *Helicobacter*-related disease (duodenal and gastric ulcer, duodenitis and gastritis).

Non-ulcer dyspepsia and peptic ulcer pain can be difficult to differentiate from other causes of acute and chronic abdominal pain, discussed in Chapters 3 and 4. Non-ulcer dyspepsia is thought to be due to abnormal motility or abnormal sensitivity of the upper GI structures to distension.



**Weight loss or anaemia is never due to dyspepsia alone. The presence of vomiting more typically occurs with other causes of abdominal pain.**

## EXAMINING THE PATIENT WITH INDIGESTION

Check for:

- Obesity or pregnancy—these may support a diagnosis of GORD.
- More subtle signs, such as tar staining on fingers and features of iron deficiency anaemia—these may also be consistent with GORD but not exclusively so.
- Chronic GI blood loss and iron deficiency—these may be caused by ulceration of the oesophageal mucosa and may indicate chronic severe acid reflux.
- Tooth erosion by acid—this may be a sign of very severe reflux.

Often, physical examination is normal for patients with reflux disease. Examination is also unremarkable in the case of oesophageal spasm.