

The problem of fatigue is about to get significantly worse with the introduction of 24/7 operations and the development of ultra long haul passenger aircraft making 22-hour commercial operations from Sydney to London non-stop. Currently 16-hour flights operate from Singapore to Los Angeles. Military flights have been up to eighteen hours but pharmacological intervention is routine. Studies have shown F1-17 pilots can be kept awake for 2-3 days with no statistically significant loss of function when given amphetamines every couple of hours.

Sleep restriction is common in the aerospace industry (as it is for medical students and junior doctors in hospitals) and there is large individual variability in sleep and resistance to the effects of sleep loss. Recovery is based on deeper more consolidated sleeps and not hour for hour reparation. After two uninterrupted sleeps, EEG indicates the normal sleep architecture returns. However, it takes more than three days before full waking function is restored. Sleep needs to be maximised prior to work and during lay-overs and the rest opportunities during

flights needs to be maximised. Commercial pilots use hypnotics (such as Temazepam) to assist in reconstructing the sleep architecture but sleep medications are not recommended for ongoing fatigue.

Courses in aviation medicine are offered at the Wellington School of Medicine, University of Otago. Papers include aviation physiology, aircrew and performance, airport and travel health, and clinical aviation medicine. For further information see:

www.otago.ac.nz/Web_menus/Dept_Homepages/aviation

REFERENCE

- Asleep in the Sun*
Conference Handbook
The 2005 Annual Scientific Meeting of the Australasian Society of Aerospace Medicine and the 5th Asia Pacific Congress of Aerospace Medicine

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FEATURE : BOOK REVIEWS

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Illustrated Clinical Anatomy

Abrahams, Craven and Lumley, \$89.00

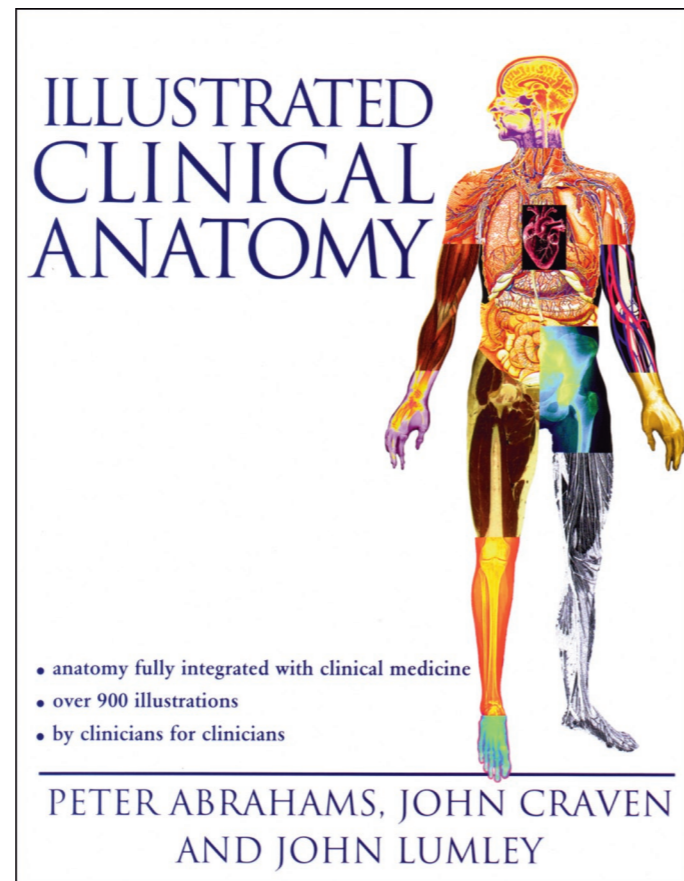
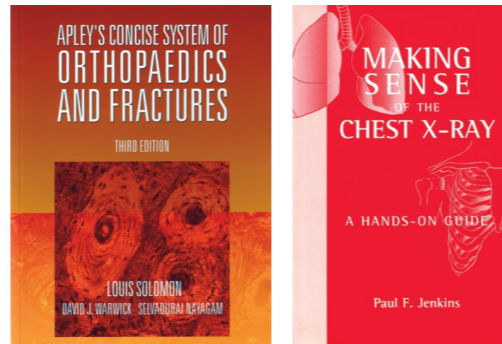
This anatomy textbook describes itself as "...integration of anatomy teaching with the study of clinical medicine". It has been written by two surgeons and a GP, also a professor of clinical anatomy. I like the sound of that. Doctors writing for doctors-in-training.

At first sight I thought it was too small to be an anatomy textbook, being about half the size of Moore. However in my brief read I found this to be no problem. The layout of Abrahams *et al.* is as is normal for anatomy textbooks: by body region. However there is one difference that seems just what I've heard some many people say they wanted. It's logical. For example, in 'The Pelvis' the bones are first discussed, followed by joints, muscles, fasciae and organs. Function is described throughout. An aspect of this book that I particularly like was that the clinical information was not in a box to the side. It is in the text itself, and highlighted. I would expect such things form a 'Clinical Anatomy' textbook.

I would also expect cool pictures. Some of the clinical photos are quite graphic – like some guy casually sitting with a sternal puncture, or a right indirect inguinal hernia extending into the scrotum. They don't just have photos though. There are lots of diagrams, imaging and surface anatomy. A patient won't come to you partially dissected (hopefully). This book has many photos of a person with the relevant organ/area superimposed. It helps with perspective and tying all our disjointed anatomical knowledge together.

Another good aspect is the one page of SAQs and MCQs at the end of each region. And there are answers, thank goodness.

In summary, I liked it. However, I wouldn't replace an atlas with it, there isn't enough of that sticky detail. I would like the anatomy department to have a look and see if it covers all that we need to, the anatomical and the clinical. Appropriate for all levels of medical training.



Making Sense of the Chest X-ray: a hands-on guide

Jenkins, \$70.00

The lecturer says "and you can see clearly that this man has a bronchiogenic cyst". You look enthusiastically at the projected image, and see no difference between that and the primary tuberculosis patient's x-ray. What to do?! It would be wonderful to have an experienced physician at hand to lead you through the complexities. Paul F. Jenkins may be your man.

His book begins with a systematic approach to interpreting the radiographs. He refers to this many times and the final section of the book challenges you to diagnose patients using the method. Within the body of the text are five chapters focusing on specific features, such as "Consolidation, Collapse and Cavitation". The radiographic appearances are explained and pathologies detailed. For example, within the "Consolidation" part of the chapter is "What is the distribution of the abnormal shadowing?" given below are the possible causes of each type of distribution. This would be a wonderful tool for differential diagnosis.

'Making Sense of the Chest X-ray' is a well written book. It is as though Dr Paul himself is speaking to you. There are little text boxes throughout containing clinical associations, warnings and "pearls of wisdom". Abbreviations are explained at the beginning. My need for bullet points was well satisfied. However the names of diseases, syndromes and the likes made things a bit tricky. What on earth is Osler-Rendu-Weber syndrome? Because the book requires higher medical knowledge and is so clinically focused I feel that it would be best suited to clinical-years students and junior doctors. However, a pre-clinical student with a few textbooks and a radiographic inclination would also reap wisdom from Jenkins' guide through the murky chest x-ray.

Apley's Concise System of Orthopaedics and Fractures, 3rd edition

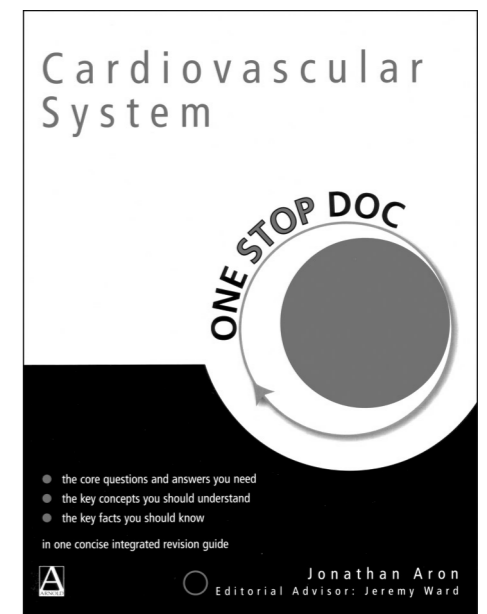
Solomon, Warwick and Nayagam, \$85.00

This textbook aimed to introduce medical students and trainee surgeons to modern orthopaedics, with a focus on "actual diseases". The authors also wished to provide guidance on simple procedures without excessive detail. Knowing how to operate – now that sounded exciting.

They didn't lie. After going through the pathogenesis, clinical presentation and imaging, for example, the treatment was discussed. If treatment included surgery you are briefly told of the goings-on in the operating room. And focus is definitely on the disease/injury/condition. One thing I found was that conditions were discussed in different ways, sometimes the differential diagnosis was detailed and sometimes not, for instance.

The layout is reasonable. Again there are the wee boxes containing condensed and important information. The book is structured by general orthopaedic stuff, conditions by body regions, and one section on fractures and joint injuries. At the beginning of the chapters the subjects contained are listed with page references. This would be very handy for quick reference. However, I found it slightly difficult to 'jump into' and pick out certain things. It is quite hard to see where a new condition begins and if you're looking at a new subject or just a subheading. Furthermore, you really need to know your anatomical terms: "...by pressing on the dorsum while manipulating the wrist into flexion, ulnar deviation and pronation". Saying that, there are lots of pictures, MRIs, diagrams, and funky clinical photos.

I would say this is worth the cash if you are really interested in becoming an orthoped. For orthopaedic training I would suggest something with more detail. There is a bigger book 'Apley's System of Orthopaedics and Fractures', which is said to have more detail in descriptions and in surgical procedures.



One Stop Doc

Series of nine, various authors, \$44.99 each

Well now, 'One Stop Doc' sounds like medicine made easy. I was curious. On the front of each of the nine books there is a statement that it will cover the core questions, the key concepts and the key facts. And that it is an integrated revision guide. I hadn't seen anything like this for medical students.

The books contain questions on anatomy, physiology, biochemistry and pharmacology. Questions are in the form of True/False, short answer and multiple choice. Many questions are based on cases. Oh and the answers are written really tiny at the bottom of the page facing the questions. On that page also is the gem of this series: a concise and easily read explanation of the answers. One other nice thing is that the abbreviations are not only clarified at the front of the book, but also on the bottom of the pages that contain them.

These are truly revision tools. I wouldn't base my entire respiratory system knowledge on the information given on the 'explanation page', for example. However, they are very good. A bit on the pricey side at \$44.99 a head. Have a look for yourself if you can and see if you think they're worth it.

The series consists of:

- Nervous System
- Cardiovascular System
- Respiratory System
- Musculoskeletal System
- Gastrointestinal System
- Endocrine and Reproductive System
- Renal and Urinary System and Electrolyte Balance
- Metabolism and Nutrition
- Cell and Molecular Biology