

Digital Anatomy

Anatomy has been a cornerstone of medical and surgical education for hundreds of years. As an adjunct to traditional dissection-based teaching and textbooks, this month's digital review guides you through some internet based anatomy resources.

3D models

Anatomy for urology, is available on **anatomy.tv** (<http://www.anatomy.tv>) or as a separate DVD produced by Primal Pictures (Figure 1). The site can be accessed for free by fellows, members, and affiliates of the Royal College of Surgeons of England or through some NHS Athens and Shibboleth accounts.

Anatomy.tv provides a series of detailed 3D models derived from medical imaging data. Layers of images can be added or removed to allow greater focus on areas of interest. The ability to view images from 360 degrees provides users with a good idea of structural relationships, facilitated by excellent labeling. Additional features include surgical procedural videos, animations and text. The videos are detailed and feature good anatomical diagrams, which further help to explain operative interventions. Images can be saved to the user's computer.

Anatomy videos

Acland's Video Atlas of Human Anatomy (<http://www.aclandanatomy.com>) is a series of videos created by noted anatomist, Professor Robert Acland (Figure 2). Available for free to fellows, members and affiliates of the Royal College of Surgeons of Edinburgh, the atlas is divided into five anatomical volumes of narrated videos. The videos play back automatically and are subdivided according to the anatomical region of interest.

Acland's Anatomy provides a broad overview of anatomy but in total features only 16 minutes of videos specifically relating to urological anatomy. Overall, these videos are more suited to medical students, lacking the detail needed by practising urologists. The breadth of narrated videos, totaling



Figure 1
(© Primal Pictures Ltd 2012)

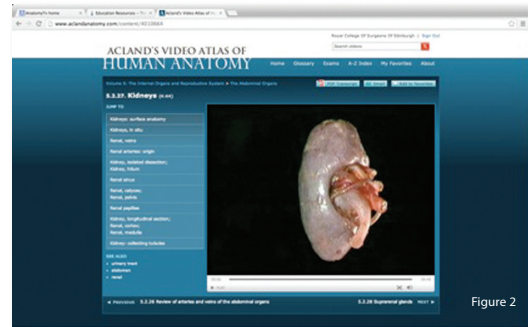


Figure 2

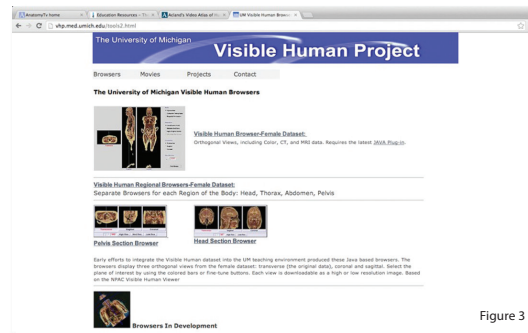


Figure 3

over 300, does however make this an excellent resource for those preparing for the MRCS examination.

Visible Human Project

The **Visible Human Project** consists of a series of slices through entire male and female cadavers (Figure 3). The project started in 1989 through the National Library of Medicine which aimed to create a digital atlas of anatomy. The cadaveric images can be viewed through a number of websites, the links to which can be found at (<http://www.nlm.nih.gov/research/visible/applic>). Computed tomography and magnetic resonance imaging scans of the anatomy visible in the cadaveric slices are also available, allowing correlation. Although there is no specific urology section, the visible human project is a great starting point for learning to interpret cross sectional imaging.

None of the above resources are intended to replace traditional teaching methods but having a different perspective can only improve learning and understanding of human anatomy.

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