

### 3D HEAD & NECK ANATOMY WITH SPECIAL SENSES AND BASIC NEUROANATOMY

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Since I commenced my under-graduate training, last century, there have been restrictions on the use of cadavers and a reduction in the availability of cadavers for teaching anatomy. There have also been significant concerns regarding health and safety issues, as the disease patterns of infections such as human immunodeficiency virus and Creutzfeldt-Jakob disease have evolved. Despite this, there remains an absolute need for doctors, and especially surgeons, to understand human anatomy. As technology has developed, some of the medical schools rely more on sectional anatomy from computed tomography and magnetic resonance imaging (MRI) examinations for teaching purposes.

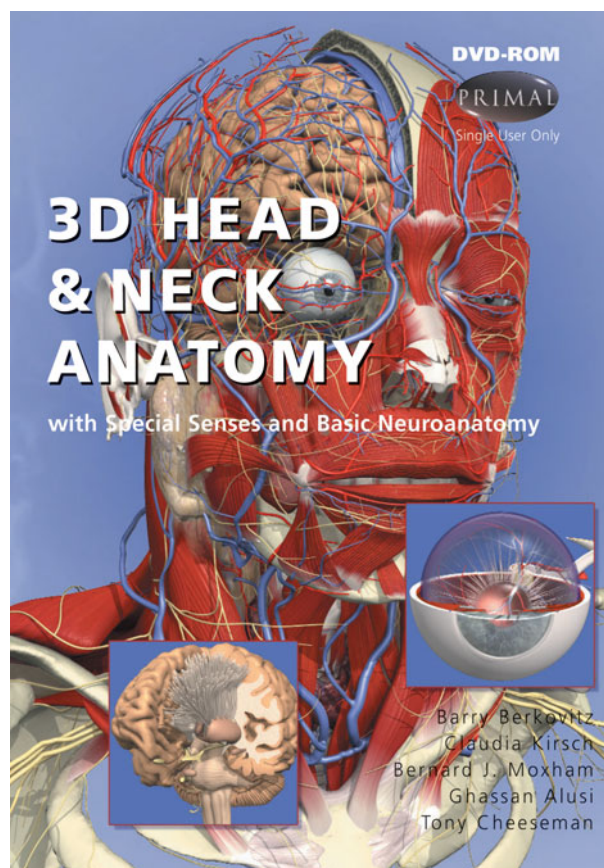
This DVD provides a novel approach to understanding anatomy. Teaching is provided through different modalities in four sections. These include artistic anatomy pictures, MRI sections, slides and movies. Learning is enhanced by the ability to rotate specimens in either a step-wise or a continuous mode in many planes, in both clockwise and anti-clockwise directions. Initially, I found it a bit of a challenge to control the direction of rotation, but that may reflect my lack of experience with computer games!

In the anatomy picture section, it is possible to click on any structure, such as a muscle, and to learn the origin, insertion, neurovascular supply and action of that muscle. By clicking on the blue links, it is possible to pass immediately to anatomical slides from cadaver dissections.

The MRI section includes axial, sagittal and coronal plane views. It is possible to view these alongside the pictorial anatomical sections. It is possible to click on most of the structures and obtain an anatomical description of that structure.

The clinical slides are relevant for junior trainees and are simply linked to other aspects of anatomy. The selection of clinical slides is very varied. It would be helpful to have some labelling (e.g. anterior vs posterior, or of major structures), as junior trainees may find it difficult to orientate some of the slides, especially those demonstrating surgical procedures.

I felt more at home with the dissection slides, which clearly demonstrate cadaveric dissection. It is possible to click on structures and identify them. It would be helpful to have links providing more detail on



individual structures, especially as this information is readily available elsewhere in the DVD.

The movies are educational and demonstrated the DVD's ability to manipulate anatomical structures in any direction. Generously, there is a selection of movies available to export for PowerPoint presentations.

I found the quiz interesting; it is available at different levels of difficulty. Some of the anatomical questions are of limited relevance to surgical procedures; however, a thorough knowledge of anatomy is the platform upon which competent surgeons build.

The multiple choice question section helps individuals to build increasing knowledge, by allowing them to check their improving scores. It is possible to check each question stem as one progresses. It is also possible to check all responses at the end of the test. Either modality is useful, depending on where the individual is placed on their learning curve.

Head and neck surgeons need an intimate knowledge of the anatomy of the neck and its deeper structures, as well as specialist knowledge of the temporal bone and paranasal sinuses. Traditionally, this knowledge has been acquired by studying and dissecting cadaver specimens, dissecting the anatomy of

temporal bones, and dissecting the paranasal sinuses and surrounding structures. My belief is that it is not possible to get a 'feel' for tissues and dissection depth without contact with anatomical specimens prior to surgical exposure. This DVD is an excellent attempt to traverse the bridge between academic knowledge and surgical 'feel'. Its interactivity with MRI and clinical pictures surpasses the traditional anatomical tomes, although these still retain their place in the mastery of detail.

The computer requirements of the DVD-ROM are as follows: Microsoft Windows 2000 or XP, or

MAC OS10.28 or greater; a processor speed of 1 GHz with 256 MB of RAM; a screen display of 1024×768; and a DVD drive.

In conclusion, I am delighted to report that this DVD, produced by Primal Pictures, the revolutionary anatomy software developer, has won first prize in the electronic media category in this year's BMA Medical Book Competition. This award speaks volumes for the quality of this teaching DVD.

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