



PRIMAL PICTURES LAUNCHES 3D ANATOMY SOFTWARE FOR THE DENTAL PROFESSION

Primal Pictures is delighted to announce the recent release of 3D Head & Neck Anatomy for Dentistry. This stunning new anatomy resource has been developed using the expertise of dental specialists and is designed to meet the needs of dental students, professors and practitioners worldwide.

“The graphics are remarkably clear,” comments Professor Patricia A. Reynolds, Director of Flexible Learning, King’s College London Dental Institute. “The DVD helps make anatomy much easier to visualise and includes notes on clinical relevance. It provides an important 3D teaching and learning aid.”

3D Head & Neck for Dentistry provides clear, detailed and accurate 3D modelling of more than 100 views of key anatomy from the head to individual teeth. It offers a comprehensive image library that can be used for reference, to enhance consultations, presentations, teaching and study.

“I think it is fantastic, really impressive,” comments Dr Natasha Berridge a qualified dentist and Foundation Year Two doctor who is currently working in critical care on her general surgery rotation. “I think it is a superb tool for any dental student. Head and neck anatomy can be really difficult to learn but Primal’s software allows you to visualise structures in 3D perfectly and is as close to live dissection as you could possibly get.”

Views include oral and nasal cavities, dentition, individual teeth in 3D and cross section, nerves, larynx and pharynx, sinuses, the eye and brain. “It is great as a reference point for medical students who are looking to extend their knowledge of specialist areas such as maxillofacial or oral anatomy - especially if they are working in an acute clinical setting, such as Accident and Emergency or during placement on a head and neck firm – an additional bonus is that it provides a great means to support patient education in a clinical setting,” adds Dr Berridge.

The DVD also features specialised clinical content, including 3D views of progressive dental conditions such as caries and gingivitis, as well as interactive 3D nerve views of intraoral injections. The clinical text section covers a range of subjects from dental anaesthesia and the spread of infection to embryogenesis and pterygopalatine fossa.

“We were really keen to ensure that the DVD was truly relevant to dentists and so we spent a lot of time looking at the potential problems that dentists face, such as how infection spreads in the head and neck,” says Dr Scott Rice, clinical fellow in oral and maxillofacial surgery at Barts and The London NHS Trust. “We also wanted to focus on the use of local anaesthesia because it is an everyday job requirement for any dentist.”

“When students learn anatomy, having clinical relevance gives them something to hook onto – anatomy can seem very dry when there is little context and therefore, more difficult to learn,” explains Professor Reynolds. “It is therefore very useful to be able to see what you might cut when you perform surgery or

what tissues you are in when looking for a particular pathology. So putting the anatomy into a clinical context brings it alive and enhances the learning experience.”

Users can link slices of the model with MRI scan data in the axial, sagittal and coronal planes for comparison and study purposes and animations showing functional anatomy of the Temporomandibular Joint and facial and neck muscle function help users to visualise key movements and functionality.

“The most useful aspect of the DVD for me is this ability to link anatomy and MRI or CT images,” comments Dr Rice. “As a postgraduate working in clinics, I am analysing scans on a daily basis and this is a really useful tool for training students in the accurate interpretation of scan data.”

The DVD allows users to view anatomy from whatever angle they wish in clear, anatomically accurate 3D images which can be exported into other formats for use in presentations and dissertations. The fully interactive software provides detailed labelling and explanatory text, clinical notes and links to other relevant content within the software.

Dr Rice recommends the DVD for anyone who is studying Dentistry or a post-graduate dental qualification such as the MClinDent: “The fact that this is a DVD and not a book is what makes it so attractive. Although it is not the same as cadaver dissection by any stretch of the imagination, Primal allows you to follow your area of interest as far as you want to go. There is no prescribed route as there is in a standard anatomy text book and so you can choose what to zoom in on.

“What’s more, if you make a mess of it, unlike a cadaver, you can just click reset, go back to the beginning and start again!”

“We are delighted with the feedback that we have received already on this product,” comments Primal Pictures Managing Director, Peter Allan. “We wanted to give the dental profession all of the benefits of our interactive software models but we needed to provide specialist content in order to make it relevant. Our authors have worked extremely hard with us to develop this DVD and we are very proud of the result. We hope that it will make as much difference to the teaching and learning experience in dentistry as our other products have made to the medical profession.”

Additional comments from Professor Patricia Reynolds

“The 3D visuals in the DVD were very good so we knew that if we could enhance it further with clinical relevance, it could really come alive,” comments Professor Reynolds. “When students learn anatomy, clinical relevance gives them something to hook onto – anatomy can seem very dry when there is little context and therefore, more difficult to learn. It’s great if you have 3D spatial ability and can visualise and memorise anatomical pictures, but if it isn’t related to anything in clinical practice, you will find it much harder to understand why you need to know the details.

“It is therefore very useful to be able to see what you might cut when you perform surgery or what tissues you are in when looking for a particular pathology. For instance, if you are looking for a calculus in a gland, you will need to understand the relationships of the anatomy around it. You need to know the anatomy well enough to ensure that you do not cut or damage something that you should not. So putting the anatomy into a clinical context brings it alive and enhances the learning experience.

“Dental students may have less area to cover in anatomy compared to medical students but it is just as important that they know where they are putting their needles or knives, what pathologies may relate to this part of the body or what anatomy is involved in a fractured jaw so that when they do begin to practice they can put their studies into action with confidence. Cadavers are playing a smaller role in anatomy

teaching these days for a number of reasons, but there are now alternative models to learn from and Primal provides a tool that enables the user to appreciate 3D relationships.”