



Cyber-Anatomy VR™ is revolutionary software for learning anatomy using professional virtual reality technology. It incorporates the most up-to-date advances in engineering and graphics technology to enable interaction with, and visualization of, realistic human anatomy.

Cyber-Anatomy VR™ is a unique 3D interactive system that enables you to experience anatomy, structure by structure, in "real time". Understanding and recognizing the spatial relationships between muscle and bone (skeleton), muscle origin and insertion, cardiovascular and respiratory, organs and their placement in detailed relation to others; precise location of anatomical structures; is what lies at the core of understanding anatomy!



MODES OF VISUALIZATION

- Passive Stereoscopic
- Active Stereoscopic
- Auto-Stereoscopic

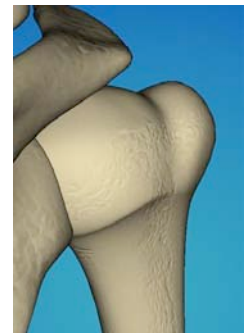
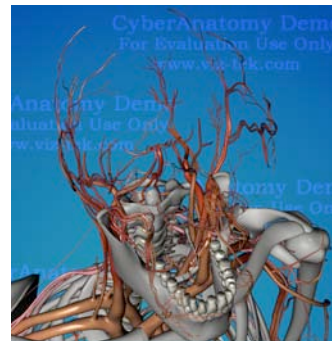
Full
Immersion



CYBER-ANATOMY

WHAT ANATOMY SYSTEMS ARE MODELED?

1. Bones and Skeletal Tissues
2. The Skeleton
3. Joints
4. Muscles and Muscle Tissues
5. Muscular System
6. Nervous Systems and Nervous Tissue
7. Central Nervous System
8. Peripheral Nervous System
9. Endocrine System
10. Cardiovascular System: The Heart
11. Cardiovascular System: Blood Vessels
12. Lymphatic System
13. Respiratory System
14. Digestive System
15. Urinary System
16. Reproductive System



Details of the anatomical structures



KEY FEATURES

- Fine anatomical landmarks (details are within 1mm of what the eye can perceive)
- Accurate 3D anatomical models (from CT, MRI, and other modalities)
- Surface anatomy
- Textured (colors, textures)
- Labeling (allows student and instructor to mark and label)
- Quizzing module
- Male and female models
- Real-time technology allows for the highest level of immersion.



Learning becomes unforgettable when experiencing in 3D. Students sit in front of the large screen wearing 3D glasses to enable stereoscopic visualization. The instructor positions himself between the screen and the students, and using a 3D pointing device, easily interacts with all aspects of the 3D models.

Having total control over the anatomy, the instructor can, for example, present the body of a female; remove a few layers of soft tissue, muscle, nerves and bones, to arrive at the anatomy the digestive system. Along the way, he can explain each anatomical landmark, while interacting with the model in total immersion. Learning anatomy in 3 dimensional is perhaps the most effective method in the world for retaining what is taught. Students can readily visualize the anatomy, understand spatial relationships and visualize the most minuscule of details.

CYBER-ANATOMY SOFTWARE™

is the virtual reality software that brings the immersion to life... that allows total maneuverability of the anatomical structures...that provides the unforgettable and amazing learning experience!

INTERACTING WITH THE VIRTUAL ANATOMY

Using a 3D interactive device, a user can effortlessly maneuver through the complex anatomy. The developers of the CA VR™ pride themselves on creating the most intuitive interface designed for ease of interactivity and simplistic loading of anatomical structures by **region** or by **system**.

- Rotate
- Zoom
- Tumble
- Manipulate
- Peel
- Transparent
- Hide and unhide
- Select
- Examine
- Peel
- Stick





MINIMUM SYSTEM REQUIREMENTS

Hardware

- Pentium III or equivalent
- 1Gigabyte (GB) of RAM
- CD drive
- Stereoscopic – capable projection display
- Pointing device (mouse, trackball...)
- Direct3D or OpenGL compatible 3D graphic card with 128 MB of RAM
- Latest official drivers for the graphics card

Software

- Microsoft Windows (2000, XP)
- Microsoft DirectX 9.0C for DirectX compatible 3D graphic accelerator cards
- For OpenGL, an OpenGL 2.0 compatible graphics card and driver

SUPPORTED DISPLAYS

Supported Displays (partial list)

- Immersive tables/desks (e.g. Baron®, ImmersaDesk®, Workbench®)
- High-resolution image walls (e.g. CAD wall)
- Desktop multi-monitors
- Any head mounted displays or VR goggles
- Any custom shaped set of fixed or reconfigurable screens
- Virtual reality cubic rooms (e.g. SAS Cube®, Cave®, VR Cube®, I-Space®, ICUBE™)

Technical Requirements

- DirectX/OpenGL compatible 3D graphics card
- Windows 2000/XP 32 or 64 bits

Supported Input Devices (partial list)

- Polhemus Fastrak
- Ascension Technology Flock of Birds
- InterSense IS600, IS900, Inertiacube, Intertrax
- ARTtracking optical trackers and flysticks
- Murray Consulting Inc Wanda
- Logitech/Magellan SpaceBall and SpaceMouse
- All Windows compatible game controller

Supported Image Generators

- Any DirectX/OpenGL-compatible 3D graphics accelerator card
- Graphics card for active or passive stereoscopy such as Nvidia® Quadro fx
- Scalable cluster hardware for optimized performance (e.g. Orad DVG)

CONTACT US



COMPLETE TURNKEY SYSTEMS



A. Cyber-Anatomy International™

VR system – Classroom size.
Consists of a completely integrated system with computer, stereoscopic display system, electronics, warranties.



B. Cyber-Anatomy Lab™

VR system – 6 users.
Consists of a completely integrated system with computer, stereoscopic display system, electronics, warranties.



OTHER MODULES UNDER DEVELOPMENT

- | | |
|---------------------------------|---|
| Cyber-Anatomy Web™ | - Software deployed through the web |
| Cyber-Anatomy Motion™ | - muscle, joint motion |
| Cyber-Anatomy Dissect™ | - dissection module |
| Cyber-Anatomy Pathology™ | - contains pathological deformities |
| Cyber-Anatomy Flow™ | - Blood and fluid flow |
| Cyber-Anatomy Tutorial™ | - 3-step solution to learning anatomy |
| Cyber-Anatomy Instructor™ | - A complete system for instructors |
| Cyber-Anatomy Sports Medicine™ | - Understand sports injuries, conditions |
| Cyber-Anatomy Chiropractor™ | - Understanding of manipulation, injuries |
| Cyber-Anatomy Neuro™ | - Understanding of the neuro-anatomy |
| Cyber-Anatomy Patient Education | - For educating/consent of patients |
| Cyber-Anatomy Gaming™ | - A general educational game |

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