



Teaching and learning with Osmosis

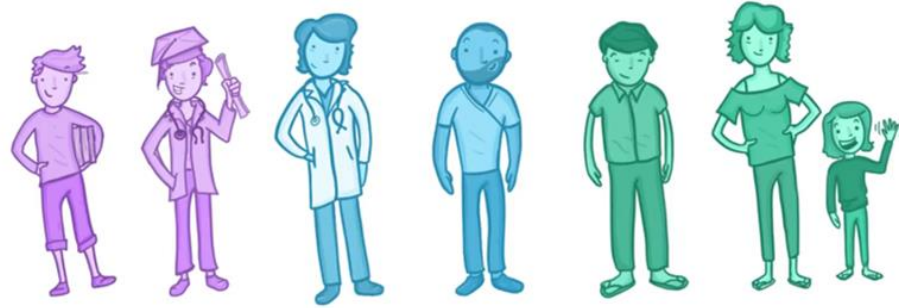
Everyone who cares for someone will learn by Osmosis

What guides us



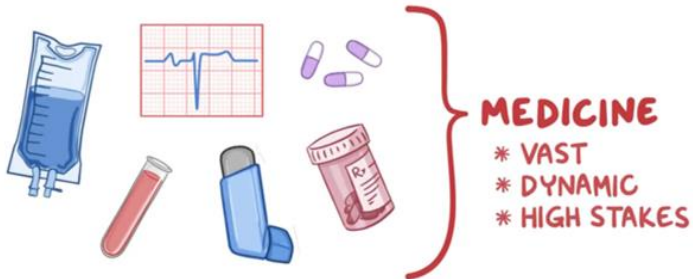
~ VISION ~

EVERYONE who CARES for SOMEONE
will LEARN by **iOSMOSIS**

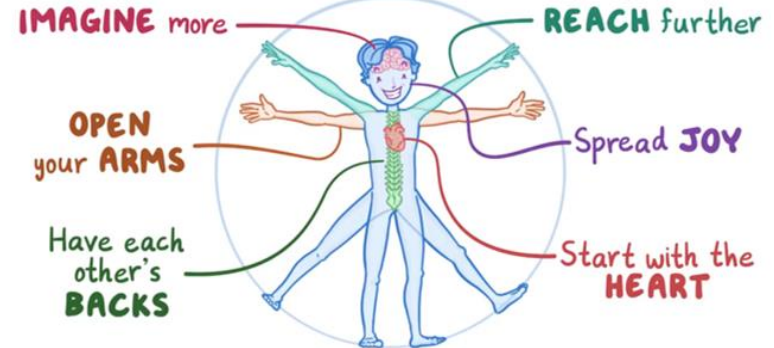


~ MISSION ~

EMPOWER CLINICIANS and CAREGIVERS with the
BEST LEARNING EXPERIENCE POSSIBLE



~ VALUES ~





Let's get visual

A quick Osmosis overview

Designed to enhance learning and clinical reasoning



The screenshot displays the OSAGOS MD interface for a video titled "Approach to chest pain: Clinical sciences". The video content includes a warning for an "UNSTABLE PATIENT" and key instructions: "STABILIZE AIRWAY, BREATHING, & CIRCULATION" and "ASSESS for LIFE-THREATENING CAUSES of CHEST PAIN". Below these are five anatomical diagrams labeled STEMI, CARDIAC TAMPONADE, AORTIC DISSECTION, PULMONARY EMBOLISM, and TENSION PNEUMOTHORAX. A "Decision-Making Tree" is visible at the bottom of the video player, titled "APPROACH to CHEST PAIN". The right sidebar contains sections for "Assessments" (USMLE® Step 2 questions), "Learning Objectives", and "Evidence-Based Guidelines".

Students learn visually and control what comes next

Bite-sized whiteboard-style videos

Content accessible via closed captioning

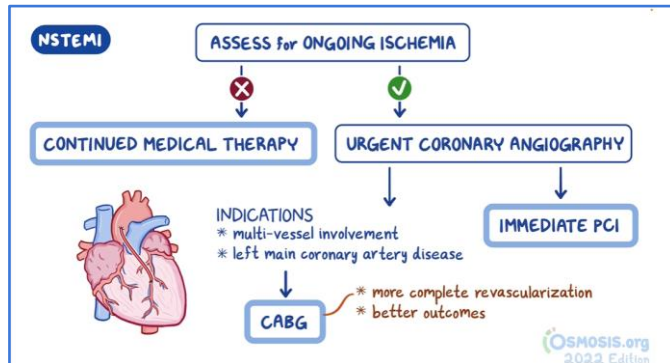
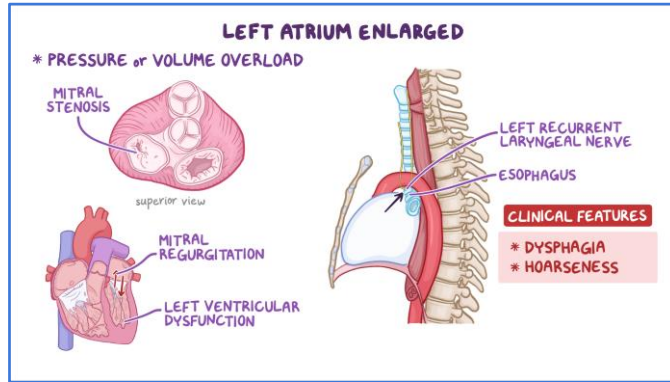
Linked USMLE®-style assessment items

Clinical Sciences video learning objectives to keep students on track

Externally-linked evidence-based clinical guidelines

Clinical decision-making trees

Speed controls for efficient consumption



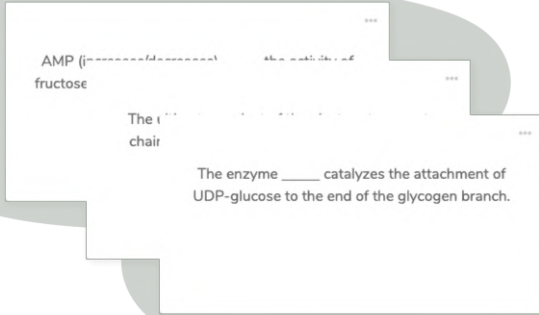
Whiteboard-style videos simplify complex medical concepts

- **Basic Sciences** videos for primary learning and clarification including case-based pathology review
- **Clinical Sciences** videos based on the latest evidence-based guidelines and U.S. national clerkship curricula for the first-time clinical learner

Linked assessment items



- Flashcards with intelligent spaced repetition
- USMLE®-style MCQ's



A 55-year-old man presents to the emergency department with severe, retrosternal chest pain and dyspnea. The pain started 3 hours ago and is increasing in intensity. Past medical history includes hypertension and diabetes. In addition, the patient had an epidural hemorrhage 2 months ago after hitting his head in a fall. In the emergency department, the patient is immediately stabilized and given aspirin. 12-lead ECG reveals ST-elevation in lead V1 to V4, and cardiac enzymes are ordered. The patient is given clopidogrel, atorvastatin, beta-blocker, and heparin. Which of the following is the most appropriate next step in the management of this patient?

Elimination tool

- A. Immediate administration of fibrinolytic agent
Show explanation ▾ 11%
- B. Admit the patient for immediate percutaneous intervention
Show explanation ▾ 68%
- C. Schedule the patient for a noninvasive cardiac stress testing
Show explanation ▾ 4%
- D. Continue medical management
Show explanation ▾ 8%
- E. Schedule percutaneous intervention within 24 hours
Show explanation ▾ 10%

Incorrect: Stress testing is contraindicated in STEMI.

You did it! This is correct

Skip →

Major takeaway

The management of acute ST-elevation myocardial infarction (STEMI) involves medical therapy and reperfusion (i.e. PCI or fibrinolytic agent, if PCI is not available) as soon as possible for patients within the 12-hour time window for reperfusion therapy.

Main explanation

This patient has an acute ST-elevation myocardial infarction (STEMI), which is a subtype of acute coronary syndrome (ACS). The management of ACS begins with stabilizing the patient immediately upon presentation. Once the patient is stabilized, a 12-lead ECG and cardiac enzymes are obtained to reach a diagnosis and begin management accordingly.

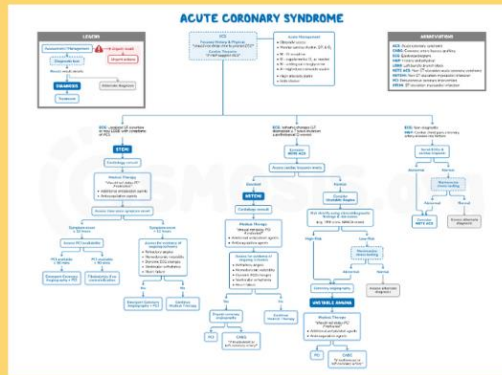
Patients with acute STEMI have a transmural infarction, which is due to complete occlusion of the coronary artery or its branches. Management of STEMI is time sensitive. Once the diagnosis is made, medical therapy is started with aspirin and clopidogrel, beta-blockers, nitrates, anticoagulation, and high-intensity statins. Simultaneously, it should be determined if the patient is a candidate for reperfusion therapy. Generally, patients who present within 12 hours of symptom onset are candidates for reperfusion therapy. The preferred method of reperfusion is percutaneous intervention (PCI) due to its high efficacy and lower side effect profile. However, if PCI is not available, fibrinolytic agents should be administered as soon as possible, unless contraindicated.

```
graph TD; A[ECG Localized ST elevation or new LBBB with symptoms of ACS] --> B[STEMI]; B --> C[Cardiology consult]; C --> D["Medical Therapy  
*Should not delay PCI if indicated*"]; D --> E["• Additional antiplatelet agents  
• Anticoagulation agents"]; E --> F[Assess time since symptom onset];
```

Multimodal content



- High-yield notes with full-color images and tables
- Clinical decision-making trees
- Externally-linked clinical evidenced-based guidelines



NOTES ANATOMY & PHYSIOLOGY

NERVOUS SYSTEM ANATOMY & PHYSIOLOGY

osms.it/nervous-system-anatomy-physiology

THE NERVOUS SYSTEM

- Network of brain, spinal cords, nerves
- Sensory/afferent, integrative, motor/efferent functions

Sensory/afferent

- Receptors monitor external, internal environment
- Conscious stimuli (e.g. vision, hearing, touch)
- Unconscious stimuli (e.g. pH, blood pressure)

Integrative

- Sensory/afferent input received by central nervous system → information processed → interpreted → response initiated

Motor/efferent

- Brings motor information from central nervous system to periphery
- Controls actions of effector organs (e.g. muscles, glands)

ORGANIZATION OF THE NERVOUS SYSTEM

Central nervous system (CNS)

- Brain, spinal cord

Peripheral nervous system (PNS)

- Nerves connect PNS with CNS
- Includes 12 pairs of cranial nerves, 31 pairs of spinal nerves
- Efferent (motor), afferent (sensory) divisions

- Efferent divided into somatic (voluntary), autonomic (involuntary) nervous systems
- Autonomic nervous system comprised of sympathetic, parasympathetic nervous systems
- Sensory receptors: structure at nerve ending; detects physical, environmental stimulus; e.g. pain, temperature
- Ganglia/ganglion (plural/ganglionic): collection of neuron cell bodies outside CNS
- Plexus/plexus (plural/singular): network of nerves outside CNS

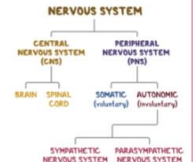


Figure 501 Organization of the nervous system.

Track video assignment completion



Cardio 112020

Total Topics: 3
Total Questions: 29

Student Video Completion: 12/102

Question Completion: 53%

Topics Students

Topics

Search

Title	Student Completion
Myocardial infarction	97/102
Angina pectoris	91/102
ACE inhibitors, ARBs and dir...	13/102

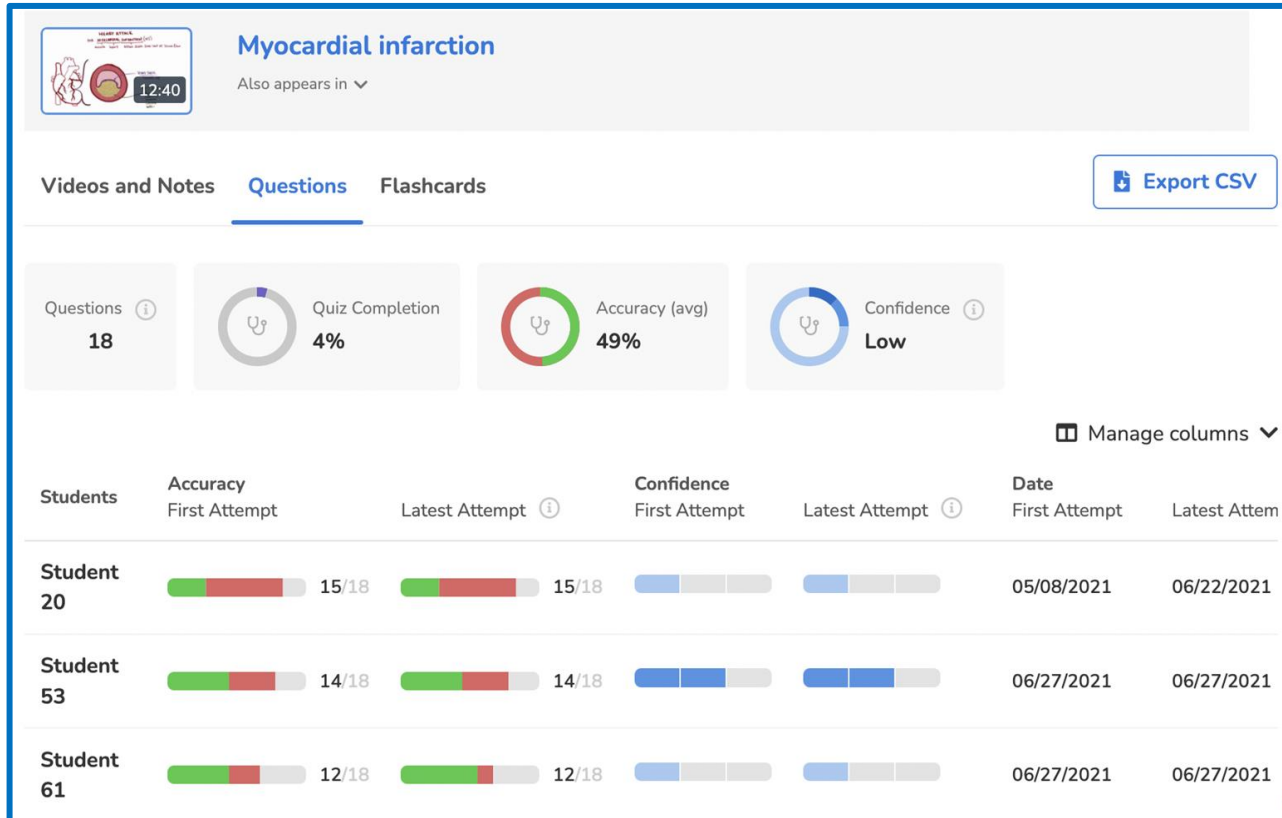
Myocardial infarction
Cardiovascular → Pathology: Ischemic injury
12:40

Videos Questions

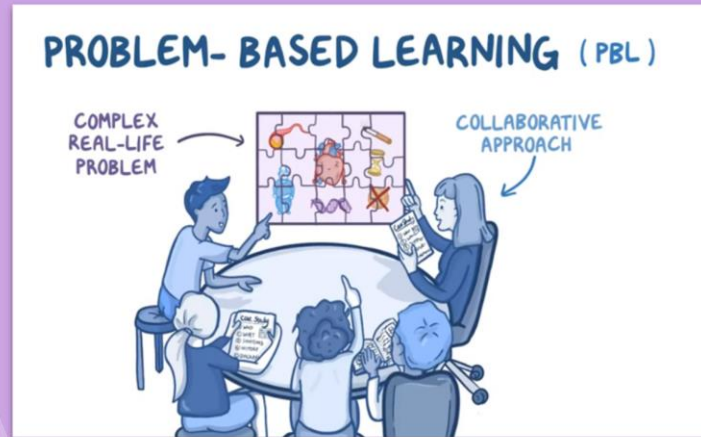
Students watched this video: 97/102

Students	Completion %	Views	Date Watched
Student 202	100%	24	3/8/2020
Student 14	100%	6	2/23/2020
Student 15	100%	6	3/4/2020
Student 31	100%	11	2/22/2020
Student 85	100%	2	2/23/2020
Student 88	100%	15	3/1/2020

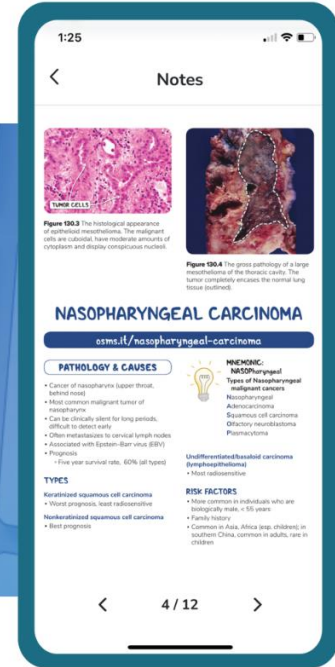
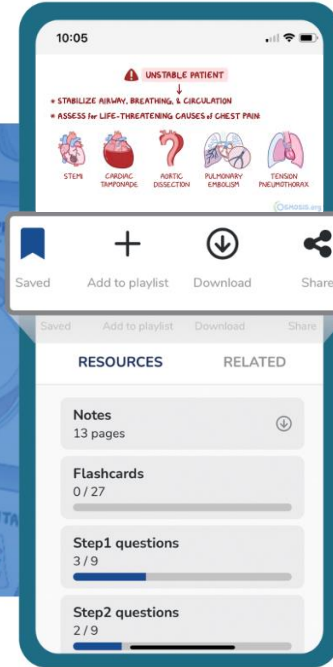
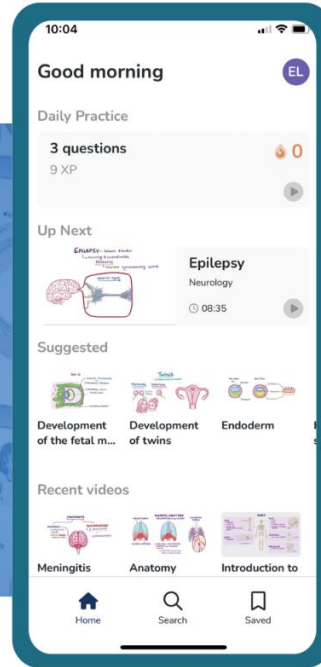
Get early signals about struggling learners



- Interpersonal communication skills
- Learning science
- Self-care
- Professionalism
- Raise the Line Podcast



Mobile app to take learning on the go



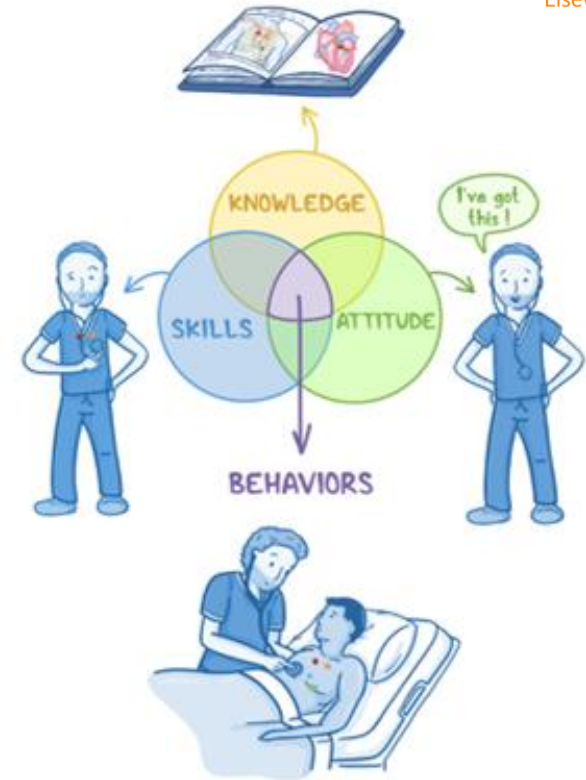


Supporting educational
innovation with Osmosis

Built on evidence-based learning principles



- **Content chunking and design** based on established multimedia design principles reduces cognitive load and promotes the development of schemas
- **Spaced repetition** with flashcards helps students retain information longer
- **Testing effect** improves exam-day performance with Q&A practice
- **Learning science videos** teach students the science of learning

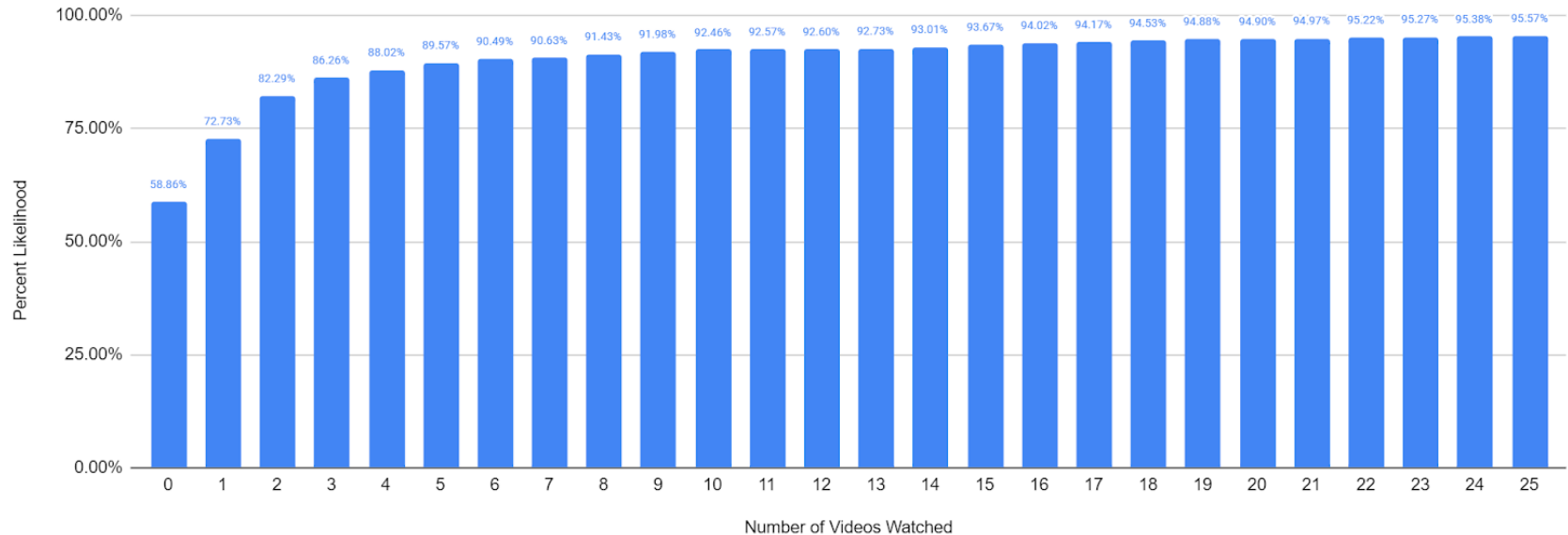


Students engage with Osmosis

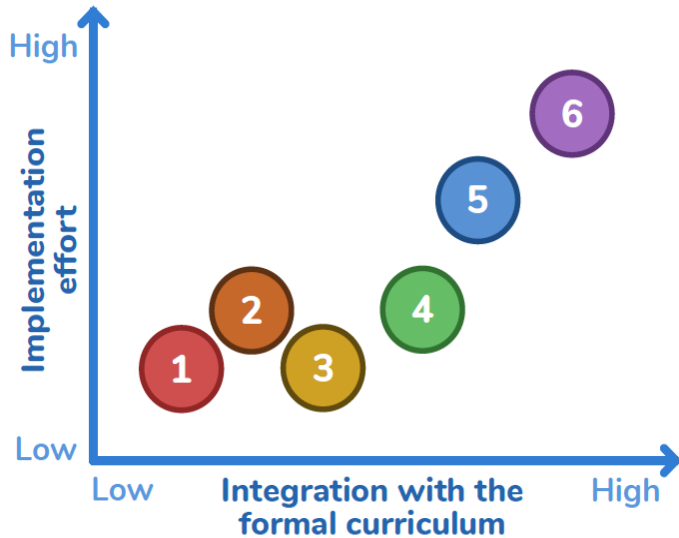


Osmosis content has an 83.6% average video completion rate. Once a user has watched 5 videos, their likelihood of watching a 6th is 90%.

Given that a User has Watched X Videos, Likelihood the User will Watch X+1



Osmosis flexes to fit your curriculum



1. Student-driven usage
2. Library access
3. SDL: Encourage continuous low-stakes assessment for learning
4. Provide prescriptive support
5. Blended Learning: Curate playlists as supplementary resources to accompany F2F sessions or level the playing field
6. Flipped Classroom: replace lecture and/or prime students for active learning sessions with assigned videos

How do partner programs use Osmosis?



- Lecture supplements and leveling student knowledge pre-lecture: [NYU Grossman School of Medicine](#), [University of Toledo's College of Medicine and Life Sciences](#)
- Flipped classroom development: [A.T. Still University Physicians Assistant Program](#), [University of the Pacific's Arthur A. Dugoni School of Dentistry](#))
- Active learning encouragement: [A.T. Still University Osteopathic Medicine Program](#), [Anáhuac University School of Medicine](#)
- Supporting faculty time: [The University of Texas Rio Grande Valley's Physician Assistant Program](#), [Kent and Medway Medical School's library](#)
- Customizable curriculum integration: [St. Scholastica's Physician Assistant program](#), [NYU Grossman School of Medicine](#)
- Early course correction and remediation: [University of Pikeville College of Osteopathic Medicine](#)

To continue the conversation, please reach out to:

Account Executive

NAME

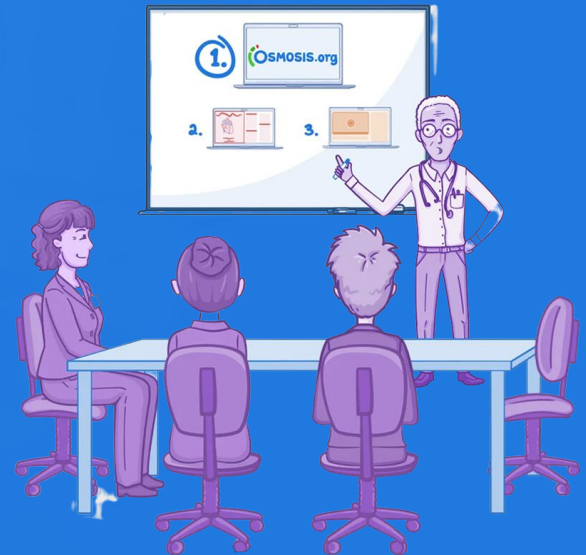
EMAIL



If you need further support we are always happy to help!

Academic Success Manager

NAME
EMAIL





Let's take a peek
at Osmosis