

Osmosis from Elsevier

<https://www.osmosis.org/login>

Osmosis- Review

Osmosis is the latest learning platform among Elsevier's products, offering medical students and educators quick access to information through videos and flashcards.

Osmosis includes over 1,700 videos, more than 15,000 flashcards, and thousands of questions and answers covering anatomy, physiology, pathology, pharmacology, and other medical fields.

Osmosis is an excellent resource for those who want to prepare for the USMLE exam.

To access **Osmosis**, you need to register with the previously received email and password.



The best learning experience possible.

Osmosis empowers students with our comprehensive video library combined with powerful study tools.

School email

Enter email (School email preferred)

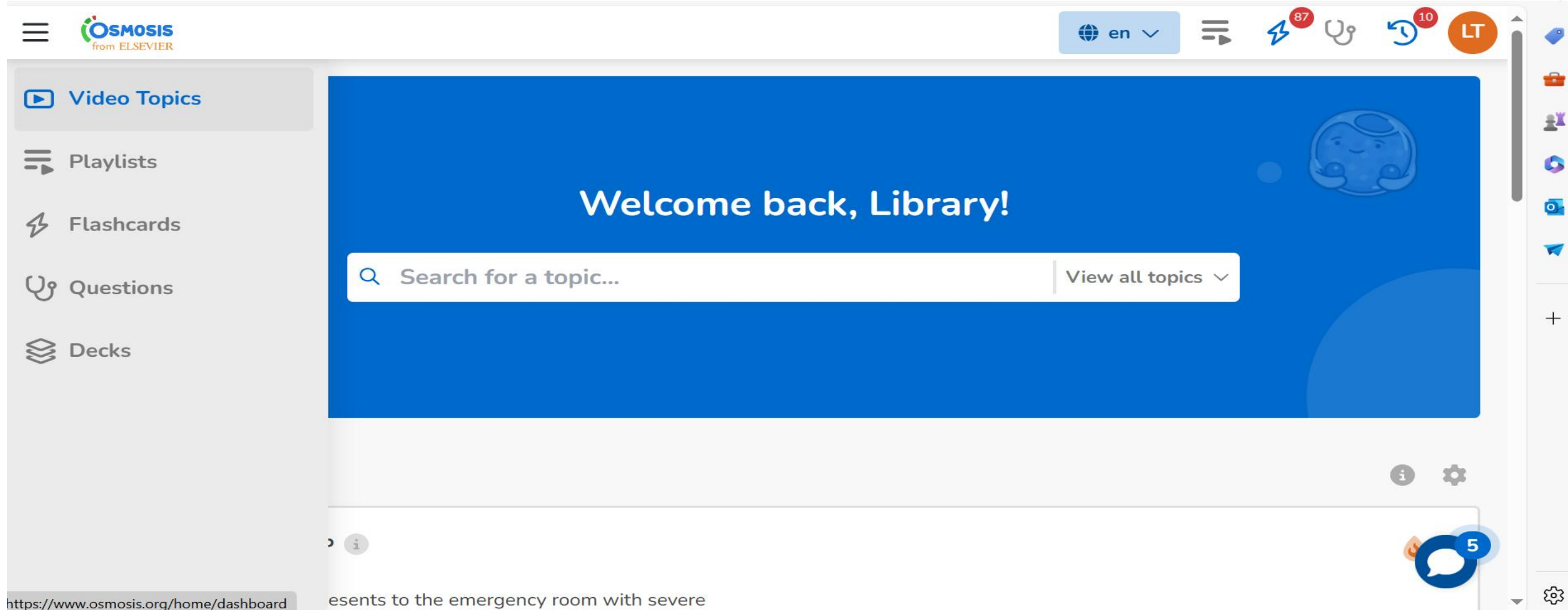
Password

Password

Sign in



The menu is presented in the left side of the home page.



By navigating to **video topics**, the program will display a list of videos presented in the basic and clinical sciences sections, categorized by systems and subjects.

OSMOSIS
from ELSEVIER

en

87

10

LT

All video topics

Basic Sciences

Foundational Sciences

- Anatomy
- Behavioral health
- Biochemistry and nutrition
- Biostatistics, epidemiology, population health, and interpretation of the medical literature
- Cellular and molecular biology
- Embryology
- Genetics
- Histology

Organ Systems

- Blood and lymphoreticular system
- Cardiovascular system
- Endocrine system
- Gastrointestinal system
- Immune system
- Musculoskeletal system
- Nervous system and special senses
- Renal and urinary system
- Reproductive system and breast

Clinical Sciences

Clinical Rotations

- Emergency medicine
- Family medicine
- Internal medicine
- Neurology
- Obstetrics and gynecology
- Pediatrics
- Psychiatry
- Surgery

NEW

NEW

NEW

NEW

5

<https://www.osmosis.org/library/oh/foundational-sciences/anatomy>

The program allows you to answer questions related to the video after watching it and test your knowledge.

The screenshot displays the Osmosis website interface. At the top, the Osmosis logo (with 'from ELSEVIER' text) is on the left, followed by a 'Topics' dropdown menu and a search bar containing the text 'Search for videos and notes'. To the right of the search bar are several utility icons: a language selector set to 'en', a hamburger menu, a lightning bolt icon with a red '87' badge, a stethoscope icon, a circular arrow icon with a red '10' badge, and an orange 'LT' button. Below the top navigation bar, a list of video topics is shown with play icons: 'Anatomy clinical correlates: Spinal cord pathways' and 'Anatomy clinical correlates: Vertebral canal'. The 'Assessments' section, marked with a shield icon, is titled 'Anatomy clinical correlates: Spinal cord pathways'. It contains two subsections: 'Preclinical questions' and 'Clinical questions', both showing '0 / 4 complete' progress. Each subsection has a '+ Start' button. The 'Transcript' section is partially visible at the bottom, marked with a 'cc' icon. On the far right, a vertical sidebar contains various icons for navigation and settings. A blue speech bubble icon with a white '5' is located in the bottom right corner of the main content area.

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Topics ▾ Search for videos and notes

en ▾ ⚡ 87 🩺 ↻ 10 LT

▶ Anatomy clinical correlates: Spinal cord pathways

▶ Anatomy clinical correlates: Vertebral canal

Assessments
Anatomy clinical correlates: Spinal cord pathways

Preclinical questions + Start
0 / 4 complete

Clinical questions + Start
0 / 4 complete

Transcript

5

Osmosis High Yield Notes features concise and easy-to-digest graphics, photos, and tables to help clarify the most difficult issues.

[illegible]

Playlist- You can add, save and share videos in playlists.

The screenshot displays the Osmosis website interface. At the top, the Osmosis logo (from ELSEVIER) is on the left, followed by a 'Topics' dropdown and a search bar labeled 'Search for videos and notes'. On the right, there are icons for language (en), a menu, a lightning bolt with a red '87' badge, a heart icon, a circular arrow with a red '10' badge, and a user profile icon labeled 'LT'. Below the header, the video title 'Introduction to the lymphatic system' is prominently displayed. To its right, it shows '3,391 views' and a blue 'Add to playlist' button with a share icon. Below the title, the breadcrumb path 'Organ Systems > Immune system > Anatomy > Introduction' is visible, along with a link 'Also appears in'. The video player area features a blue background with a white play button in the center. The background image includes text: 'LYMPHATIC SYSTEM' on the left, 'MAINTAINS FLUID LEVEL' on the right, and 'ABSORBS DIETARY FAT' at the bottom right. In the top right corner of the video player, there is another 'Add to playlist' button and a clock icon. In the bottom right corner, there is a chat bubble icon with a blue '5' badge. A vertical sidebar on the far right contains various utility icons like a magnifying glass, a briefcase, a person, a puzzle piece, a camera, a paper plane, and a plus sign for more options.

Osmosis from ELSEVIER

Topics ▾ Search for videos and notes

en ▾ 87 10 LT

Introduction to the lymphatic system

3,391 views Add to playlist

Organ Systems > Immune system > Anatomy > Introduction

Also appears in ▾

LYMPHATIC SYSTEM

MAINTAINS FLUID LEVEL

ABSORBS DIETARY FAT

Add to playlist

5

To check **Playlists**, pull down the button from the menu. Select watch later or create a new one.

The screenshot shows the Osmosis website interface. At the top, there is a navigation bar with the Osmosis logo, a search bar, and various utility icons. A blue header bar contains the 'Playlists' menu item, which is currently expanded. The expanded menu shows options to 'Watch later', 'biochemistry' (with a 'Play all' button), and 'Anatomy' (with a 'Play all' button). Below the menu, the 'biochemistry' playlist is displayed, showing a video thumbnail for 'Amino acid metabolism' with a duration of 05:44. The left sidebar shows 'My Playlists' with 'biochemistry' and 'Anatomy' listed, and 'Following' and 'Recently Watched' sections. The bottom right corner features a chat icon with a '5' notification badge.

OSMOSIS from ELSEVIER

Topics ▾ Search for videos and notes

en ▾

87

10

LT

Playlists ▾

+ New playlist

My Playlists ^

biochemistry

Anatomy

Following

Recently Watched

biochemistry

LT Library • 1 topic • 5:44 • Create

Play all Quiz all + Add

Amino acid metabolism

AMINO ACIDS

AMINE GROUP

TRANSAMINATION REACTIONS

05:44

Settings

Share

5

You can create as many **Playlists** as you need.

The screenshot displays the Osmosis website interface. At the top, the Osmosis logo (from ELSEVIER) is on the left, followed by a 'Topics' dropdown and a search bar labeled 'Search for videos and notes'. On the right, there are language settings (en), a menu icon, and notification badges for 87 and 10 items. A user profile icon labeled 'LT' is also present. The main content area shows a 'biochemistry' playlist with 'Settings' and 'Share' buttons. A 'New Playlist' modal dialog is open in the center, featuring a title input field with 'biochemistry' entered and 'Cancel' and 'Create' buttons at the bottom. The left sidebar includes a '+ New playlist' button and sections for 'My Playlists' (listing 'biochemistry' and 'Anatomy'), 'Following', and 'Recently Watched'. The footer contains links for 'Company' (About us), 'Support' (Latest on COVID-19), 'For Institutions' (Medicine (DO)), and 'More' (Plans), along with a chat icon showing 5 messages.

Osmosis from ELSEVIER

Topics ▾ Search for videos and notes

en ▾ 87 10 LT

+ New playlist

My Playlists ^

biochemistry

Anatomy

Following

Recently Watched

biochemistry

Settings Share

New Playlist ×

Title

biochemistry

Cancel Create

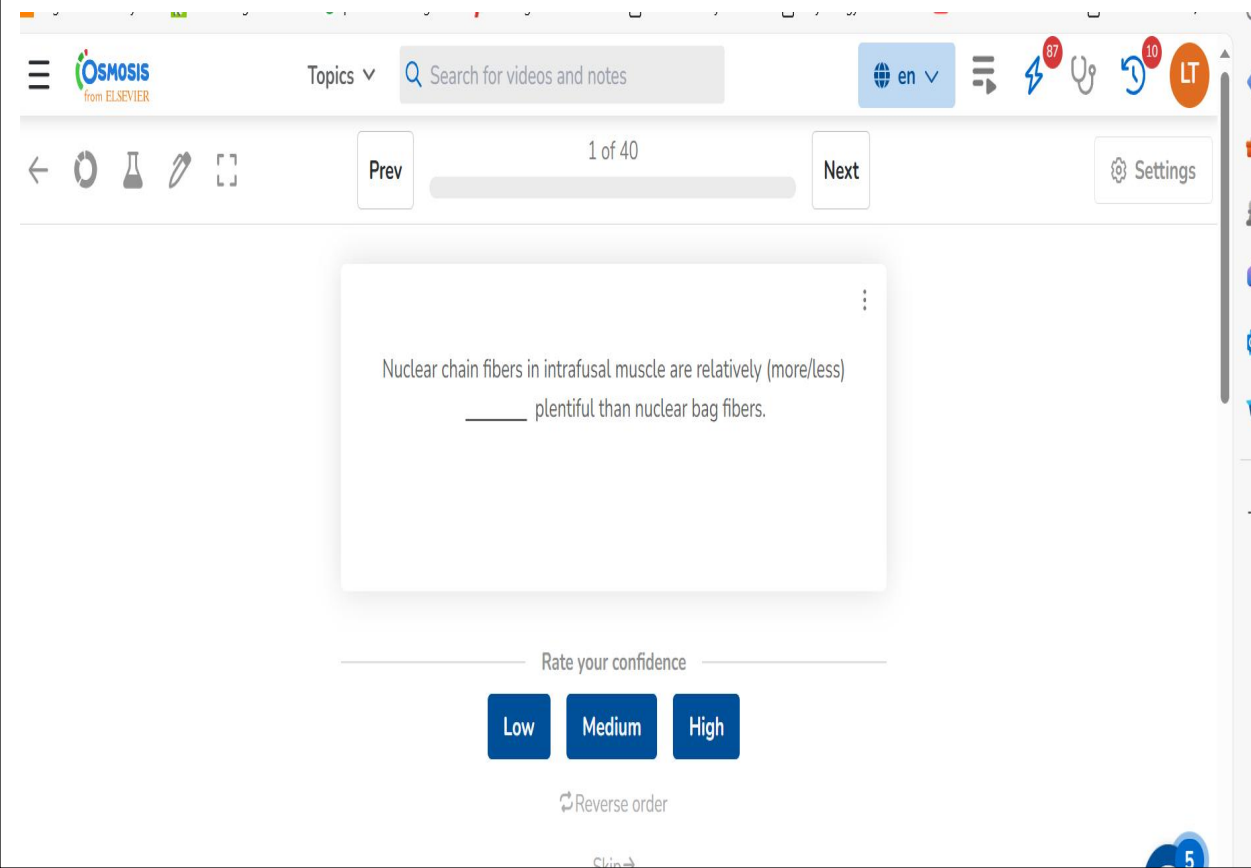
Company Support For Institutions More

About us Latest on COVID-19 Medicine (DO) Plans

5

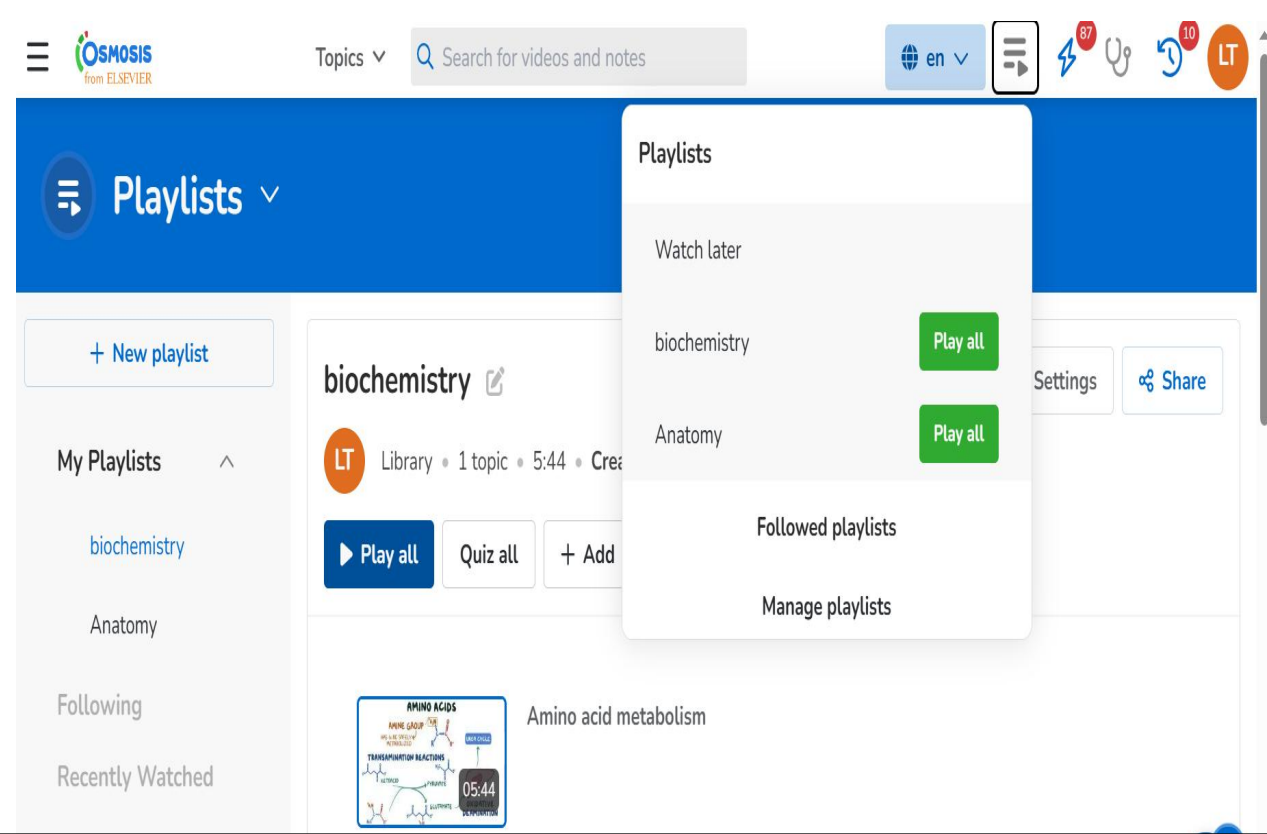
Flashcard vs Question

Flashcards are short concise questions that help you deepen your knowledge.



The screenshot shows the Osmosis Flashcard interface. At the top, there's a navigation bar with the Osmosis logo, a search bar, and various icons. Below the navigation bar, there's a progress indicator showing '1 of 40' and buttons for 'Prev', 'Next', and 'Settings'. The main content area displays a flashcard with the text: 'Nuclear chain fibers in intrafusal muscle are relatively (more/less) _____ plentiful than nuclear bag fibers.' At the bottom, there's a 'Rate your confidence' section with buttons for 'Low', 'Medium', and 'High', and a 'Reverse order' button.

The questions are based on clinical cases and have answers with their explanations.



The screenshot shows the Osmosis Playlists interface. At the top, there's a navigation bar with the Osmosis logo, a search bar, and various icons. Below the navigation bar, there's a 'Playlists' section with a '+ New playlist' button. A dropdown menu is open, showing options: 'Watch later', 'biochemistry' (with a 'Play all' button), 'Anatomy' (with a 'Play all' button), 'Followed playlists', and 'Manage playlists'. The main content area displays a playlist titled 'biochemistry' with a 'Library' icon, '1 topic', '5:44', and 'Created'. Below the playlist title, there's a 'Play all' button, a 'Quiz all' button, and an '+ Add' button. At the bottom, there's a video thumbnail for 'Amino acid metabolism' with a duration of '05:44'.

With **flashcards**, you can create a quiz on topics that interest you.

The screenshot shows the Osmosis Flashcard Quiz Builder interface. At the top, there's a navigation bar with the Osmosis logo, a 'Topics' dropdown, and a language selector set to 'en'. Below this is a blue header with a lightning bolt icon and the text 'Flashcard Quiz Builder'. The main area is divided into sections. On the left, a grey box contains an information icon and the text 'Select items below to build your quiz.' Below this is a 'Select All' checkbox. The central part of the interface is a grid of topic selection boxes under the heading 'Select topic'. The first column, 'Biochemistry', has a '2%' progress bar and a list of sub-topics: 'Biostatistics and Epidemiology' (1%), 'Cardiovascular' (0%), 'Cell Physiology' (0%), 'Dermatology' (1%), and 'Embryology' (0%). The second column, 'Physiology', also has a '2%' progress bar. The third column, 'Metabolism', has a '2%' progress bar and a list of sub-topics: 'Carbohydrate metabolism' (3%), 'Fat and cholesterol metabolism' (0%), 'Protein metabolism' (0%), and 'Nucleic acid metabolism' (0%). The fourth column, 'Nucleotide metabolism', has a '0%' progress bar. At the bottom left, there's a blue button labeled 'All of Biochemistry' with a close icon. The bottom of the screen shows a progress bar with '158' on the left, '2 Answered flashcards • 156 New flashcards' in the center, and '98% New' on the right. On the far right, there's a vertical sidebar with various icons, including a plus sign at the bottom.

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Topics ▾

en ▾

Home → Flashcards

⚡ Flashcard Quiz Builder

Show progress

% ↺

Create flashcards

Select items below to build your quiz.

Select All

Select topic

Topic	Progress
Biochemistry	2% >
Physiology	2% >
Metabolism	2% >
Nucleotide metabolism	0%

Sub-topic	Progress
Biostatistics and Epidemiology	1%
Cardiovascular	0%
Cell Physiology	0%
Dermatology	1%
Embryology	0%
Carbohydrate metabolism	3%
Fat and cholesterol metabolism	0%
Protein metabolism	0%
Nucleic acid metabolism	0% >

All of Biochemistry ✕

158

2 Answered flashcards • 156 New flashcards

98% New

Max Quiz 40 ▾

Build Quiz 5

You can choose the desired number of questions, download, save or start the test directly.

The screenshot displays the Osmosis Flashcards interface. A 'Quiz summary' modal is centered on the screen, showing a large donut chart with the number '40' in the center, representing the number of flashcards. Below the chart, it states 'Estimated Time: 8 min.' and provides a 'More options' button. At the bottom of the modal, there are three buttons: 'Browse', 'Save to queue', and 'Start'. The background interface shows a list of topics on the left, including Biochemistry (2%), Biostatistics and Epidemiology (1%), Cardiovascular (0%), Cell Physiology (0%), Dermatology (1%), and Embryology (0%). On the right, there is a 'Show progress' section with a table of topics and their progress percentages: Disease causality (0%), Selection bias (0%), Confounding (0%), Interaction (12%), and another topic (5%). The bottom of the screen shows a summary of 136 flashcards, with 2 answered and 134 new. A 'Max Quiz Size' dropdown is set to 40, and a 'Build Quiz' button is visible.

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Home → Flashcards

Topics ▾ en ▾

Select items below to build your quiz.

☐ Select All

☒ Biochemistry 2% ☒ Biostatistics 1%

☐ Biostatistics and Epidemiology 1% ☐ Epidemiology 0%

☐ Cardiovascular 0%

☐ Cell Physiology 0%

☐ Dermatology 1%

☐ Embryology 0%

Estimated Time: 8 min.

More options

40 Flashcards

Browse Save to queue Start

Show progress

% 🔄 Create flashcards

0% ☐ Disease causality 0%

0% ☐ Selection bias 0%

0% ☐ Confounding 0%

4% ☒ Interaction 12%

5% ☐

136 Flashcards 2 Answered flashcards • 134 New flashcards 98% New

Max Quiz Size 40 Build Quiz 5

You can check saved Flashcards by clicking on the button in the upper right corner.

The screenshot displays the Osmosis web application interface. At the top, there is a navigation bar with the Osmosis logo (a green lightning bolt) and the text "OSMOSIS from ELSEVIER". To the right of the logo is a "Topics" dropdown menu and a search bar labeled "Search for videos and notes". Further right are language settings (a globe icon and "en"), a menu icon, and several notification icons: a lightning bolt with a red badge "149", a stethoscope, a circular arrow with a red badge "90", and a profile icon with a red badge "LT".

The main content area is divided into two tabs: "Flashcards" (active, with a green lightning bolt icon) and "Questions". Under the "Flashcards" tab, the text "Your flashcard queue" is visible. Below this, there are two filter buttons: "By time" (highlighted in blue) and "By item". A checkbox labeled "Show only flagged items" is checked.

There are three flashcard entries listed:

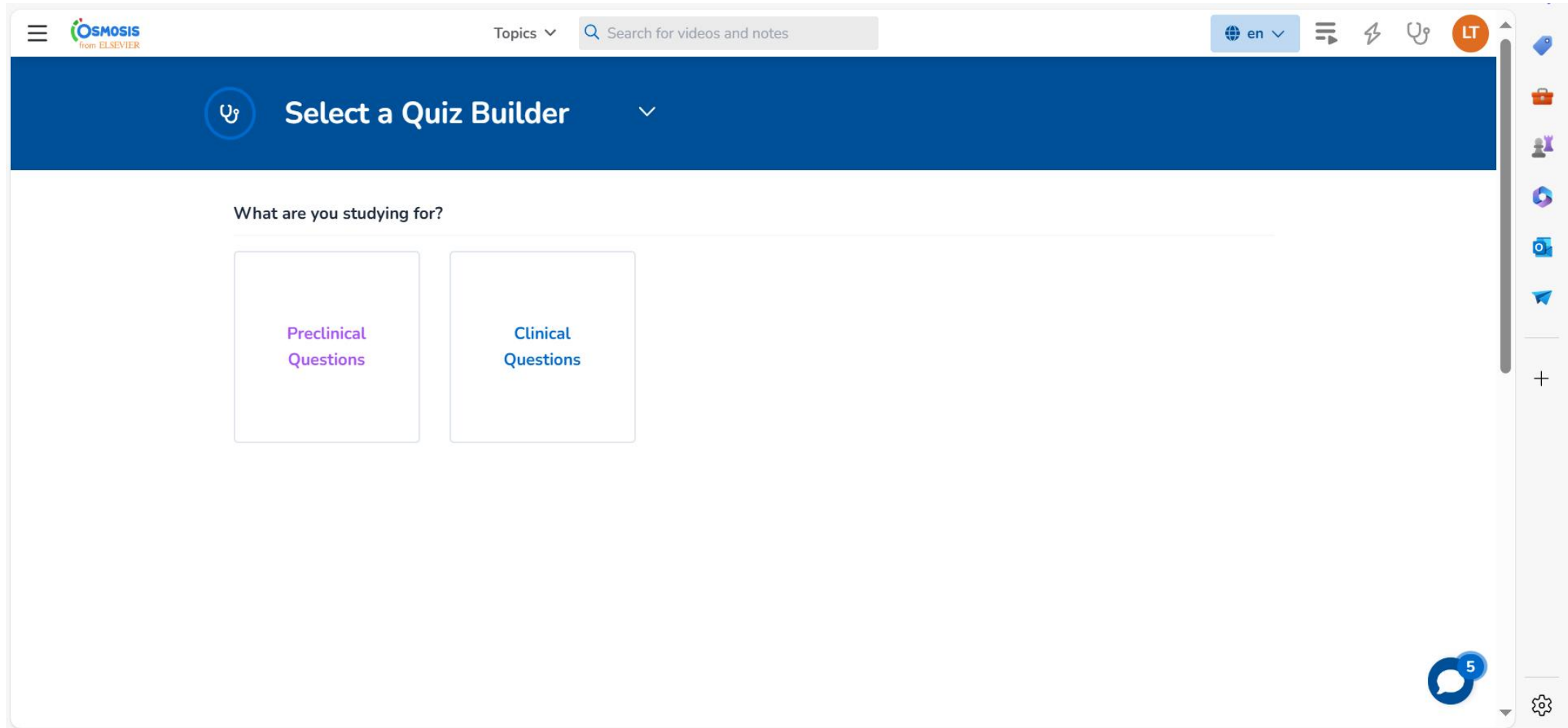
- The first entry is titled "a few minutes ago" and shows "1 of 1 completed". It has a red progress bar that is nearly full. To its right are buttons for "Start", "Remove", and a three-dot menu.
- The second entry is titled "today" and shows "79 items". It has a light gray progress bar. To its right are buttons for "Start", "Remove", and a three-dot menu.
- The third entry is titled "this week" and shows "69 items". It has a light gray progress bar. To its right are buttons for "Start", "Remove", and a three-dot menu.

On the right side of the interface, there is a vertical sidebar with various icons: a blue folder, a red toolbox, a purple person icon, a blue gear, a blue paper plane, and a plus sign. At the bottom of the sidebar is a blue speech bubble icon with a white "5" inside, and a gear icon.

Select the **Question** button from the menu to start the test.

The screenshot shows the Osmosis from Elsevier website interface. On the left is a sidebar menu with options: Video Topics, Playlists, Flashcards, Questions (highlighted in purple), and Decks. The main content area has a blue header with the text "Welcome back, Library!" and a search bar labeled "Search for a topic...". Below the header is a "Daily Practice" section showing "3 questions · 12 XP" and a clinical case description: "A 62-year-old man presents to the emergency room with severe substernal chest pain, diaphoresis, and nausea. Imaging reveals transmural myocardial infarction in the posterior one-third of the interventricular septum. The infarcted region is normally supplied by...". A blue "Start quiz" button is positioned to the right of the text. At the bottom, there is a "Recommended videos" section with a link "Not Relevant? Tell us >". The top right corner contains navigation icons, including a language selector set to "en", and notification badges for 149, 138, and 90 items. A user profile icon with the initials "LT" is also present. A vertical toolbar on the far right includes icons for a folder, a briefcase, a person, a magnifying glass, a camera, a speech bubble, and a plus sign. At the bottom right, there is a chat bubble icon with the number "5" and a settings gear icon.

Question button presents two sections with preclinical and clinical questions.



You can build the test according to topics and organ systems.
You can also choose the number of questions and finally save the already prepared test or start performing it immediately.

The screenshot shows the Osmosis website interface. At the top, there is a navigation bar with the Osmosis logo, a 'Topics' dropdown, a search bar, and a language selector set to 'en'. On the right side of the navigation bar, there are several notification icons with red circles indicating the number of notifications: 149, 76, and 90. Below the navigation bar, the main content area is titled 'Foundational Sciences'. Under this title, there is a section labeled 'Subjects' with a list of subjects and their corresponding question counts. The subjects are arranged in two columns. The first column includes: Behavioral sciences/Psychiatry (152), Biostatistics and epidemiology (61), Genetics (55), Introduction to microbiology (11), and Introduction to pharmacology (40). The second column includes: Biochemistry and nutrition (91), Cellular and molecular biology (61), Introduction to embryology (36), and Introduction to pathology (26). The 'Genetics' subject is highlighted. Below the 'Subjects' section, there is a section titled 'Organ Systems'. At the bottom of the page, there is a quiz configuration bar. It shows '0 Questions available', a 'Max quiz size' dropdown set to '75', and a timer set to '0 minute (Estimated time)'. There are two buttons: 'Save to queue' and 'Begin quiz'. On the right side of the bottom bar, there is a chat icon with a '5' notification and a settings gear icon. The bottom of the screen shows a Windows taskbar with various application icons and the time '3:38 PM'.

Foundational Sciences

☐ Subjects

- ▶ ☐ Behavioral sciences/Psychiatry 152
- ▶ ☐ Biostatistics and epidemiology 61
- ▶ ☐ Genetics 55
- ▶ ☐ Introduction to microbiology 11
- ▶ ☐ Introduction to pharmacology 40
- ▶ ☐ Biochemistry and nutrition 91
- ▶ ☐ Cellular and molecular biology 61
- ▶ ☐ Introduction to embryology 36
- ▶ ☐ Introduction to pathology 26

Organ Systems

0 Questions available 75 Max quiz size 0 minute (Estimated time)

Save to queue Begin quiz

5

3:38 PM

Questions are based on clinical cases. Explanations of correct and incorrect answers can be viewed.

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Topics ▾ Search for videos and notes

en ▾ 149 140 90 LT

A 5-month-old male infant is brought to a pediatrician for evaluation of failure to thrive. The patient was recently adopted and has never been evaluated by a physician as far as the new parents are aware. According to the parents, the infant cannot grab objects or roll from a prone to supine position. He has also experienced several episodes of generalized seizure activity. He is at the 10th percentile for length and 5th percentile for weight. Temperature is 37.0°C (98.6°F), blood pressure is 80/53 mmHg, and pulse is 92/min. Upon physical examination, the patient has a weak cry and diffuse hypotonia. Hepatomegaly is present with abdominal palpation. Genetic analysis reveals a mutation in the *PEX* gene. The organelle affected in this patient's condition is normally involved in which of the following cellular processes?

Elimination tool ☐

- ☐ Synthesis of ATP via oxidative phosphorylation
Show explanation ▾
- ☐ Clearance of bronchopulmonary secretions via ciliary oscillations
Show explanation ▾
- ☐ Synthesis of amino acid chains
Show explanation ▾
- ☒ **α -oxidation of branched-chain fatty acids**
Show explanation ▾

Press spacebar to continue →

Peroxisomes are membrane-bound organelles that perform an array of functions including **α -oxidation** and **β -oxidation** of fatty acids, neutralization of **free radicals**, and breakdown of **toxic substances** like alcohol. Zellweger syndrome is a peroxisomal disorder which presents with hypotonia, seizures, hepatomegaly, and a mutation in the *PEX* gene.

Main explanation

This young child presents with hypotonia, hepatomegaly, and a history of seizures. Genetic testing reveals a ***PEX* gene mutation**. Together, these findings are consistent with **Zellweger syndrome**—a disease that occurs secondary to peroxisomal defects.

Peroxisomes are membrane-bound organelles involved in several critical cellular processes, including:

1. Neutralization of **free radicals**, which in turn protects cellular components such as DNA, lipids, and proteins from oxidative damage.

Saved questions can be viewed by clicking on the button in the upper right corner.

The screenshot displays the Osmosis website interface. At the top, the Osmosis logo is on the left, followed by a 'Topics' dropdown and a search bar labeled 'Search for videos and notes'. On the right side of the header, there are icons for language (en), a menu, and three notification icons with counts: 149, 138, and 90. An 'LT' button is also present. The main content area is divided into two tabs: 'Flashcards' (Your flashcard queue) and 'Questions' (Your questions queue). The 'Questions' tab is active. Below the tabs, there are two buttons: 'By time' (highlighted in blue) and 'By item'. A card titled 'today' shows '8 of 142 completed' with a progress bar. To the right of the progress bar are three buttons: 'Start' (green), 'Remove' (white), and a three-dot menu (white). On the far right, a vertical sidebar contains various icons for different features, including a plus sign at the bottom. At the bottom right of the main content area, there is a chat icon with a '5' notification badge and a settings gear icon.

In the **daily repetition quiz**, there are flashcards for which you are not sure of the correct answer and you want to repeat it, you can mark in advance how long the specified question should be repeated.

The screenshot displays the Osmosis website interface. At the top, the Osmosis logo is visible on the left, and navigation links for 'en', '149', '138', '90', and 'LT' are on the right. The main content area features a blue header with the text 'Welcome back, Library!' and a search bar labeled 'Search for a topic...'. Below this, the 'Daily Practice' section is highlighted, showing '3 questions · 12 XP' and a brief clinical case description: 'A 62-year-old man presents to the emergency room with severe substernal chest pain, diaphoresis, and nausea. Imaging reveals transmural myocardial infarction in the posterior one-third of the interventricular septum. The infarcted region is normally supplied by...'. A 'Start quiz' button is located at the bottom right of this section. A dropdown menu is open on the right side, titled 'Daily spaced repetition', showing a list of repetition intervals: '1 day ago (80)', '1 week ago (10)', '2 weeks ago (0)', '1 month ago (0)', '2 months ago (0)', and '> 2 months ago (0)'. The 'Source' section of the dropdown is also visible, with 'Osmosis' and 'School' selected. The bottom of the page includes a 'Recommended videos' section and a 'Not Relevant? Tell us >' link.

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en 149 138 90 LT

Welcome back, Library!

Search for a topic... View all topics

Daily Practice

3 questions · 12 XP

A 62-year-old man presents to the emergency room with severe substernal chest pain, diaphoresis, and nausea. Imaging reveals transmural myocardial infarction in the posterior one-third of the interventricular septum. The infarcted region is normally supplied by...

Start quiz

Daily repetition quiz

Daily spaced repetition
90

- ☒ 1 day ago (80)
- ☒ 1 week ago (10)
- ☐ 2 weeks ago (0)
- ☐ 1 month ago (0)
- ☐ 2 months ago (0)
- ☐ > 2 months ago (0)

Source

- ☒ Osmosis
- ☒ School

Recommended videos

Not Relevant? Tell us >

Contact Information

Librarians:

- Luba Pogosova
- Minadar Muladze

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