
بسم الله الرحمن الرحيم

Respiratory System

CASE BASED LEARNING (CBL)

Sudden Infant Death

1st year MBBS (BATCH 50)

Dr Maryam Abbas

Date: 7.10.2023

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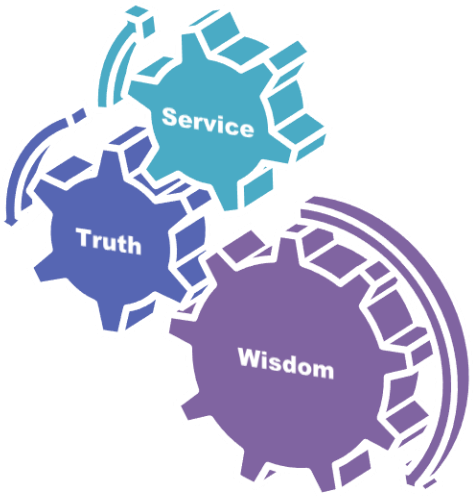
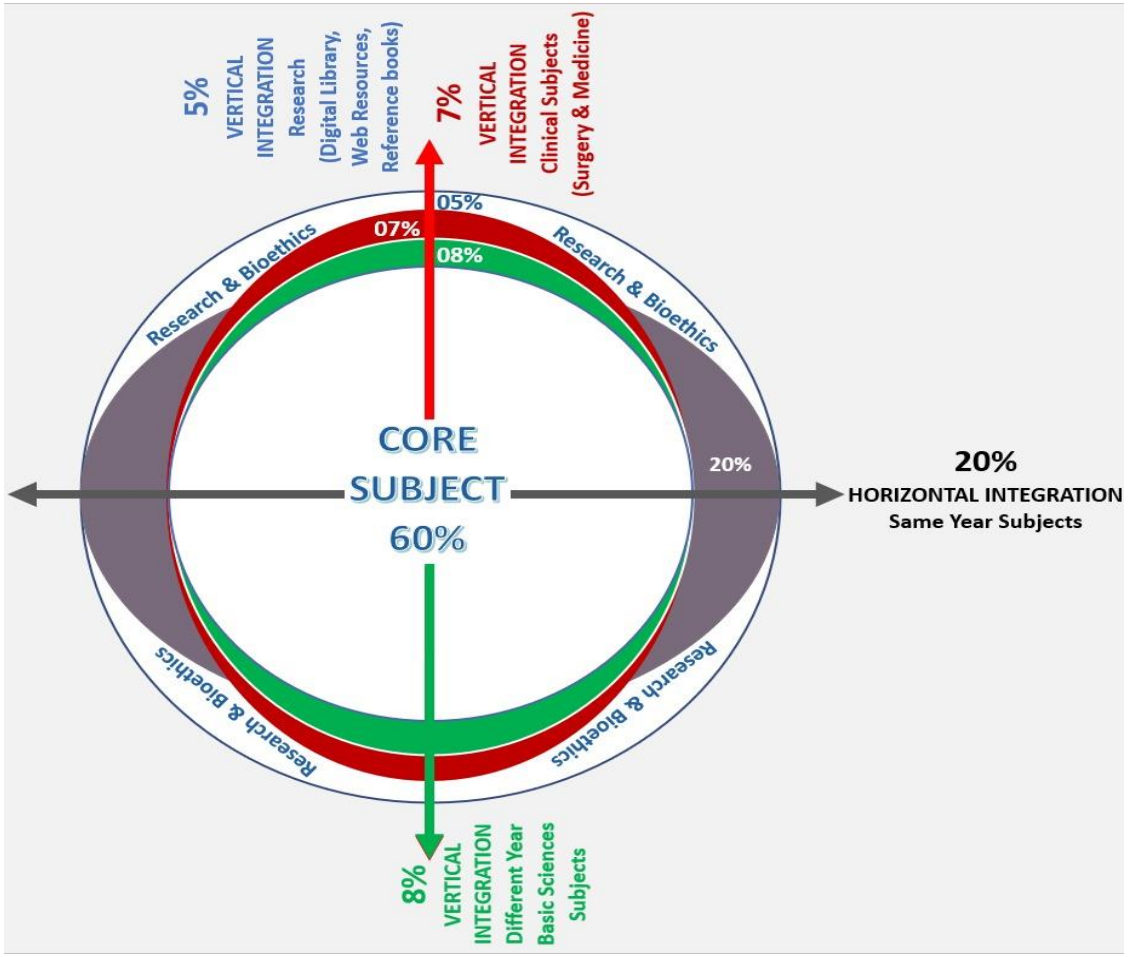
Motto

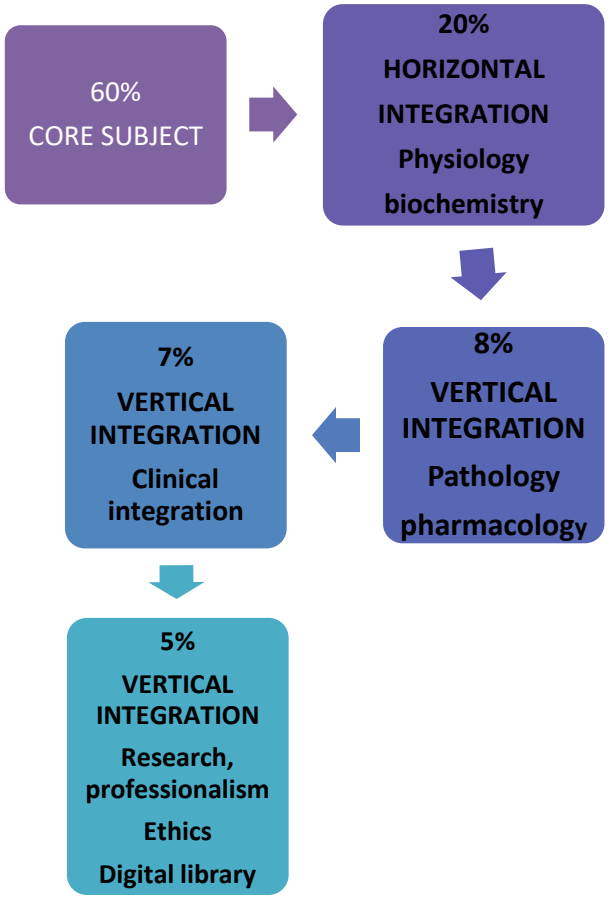


Vision; The Dream/Tomorrow

- To impart evidence based research oriented medical education
- To provide best possible patient care
- To inculcate the values of mutual respect and ethical practice of medicine

Professor Umar Model of Integrated Lecture

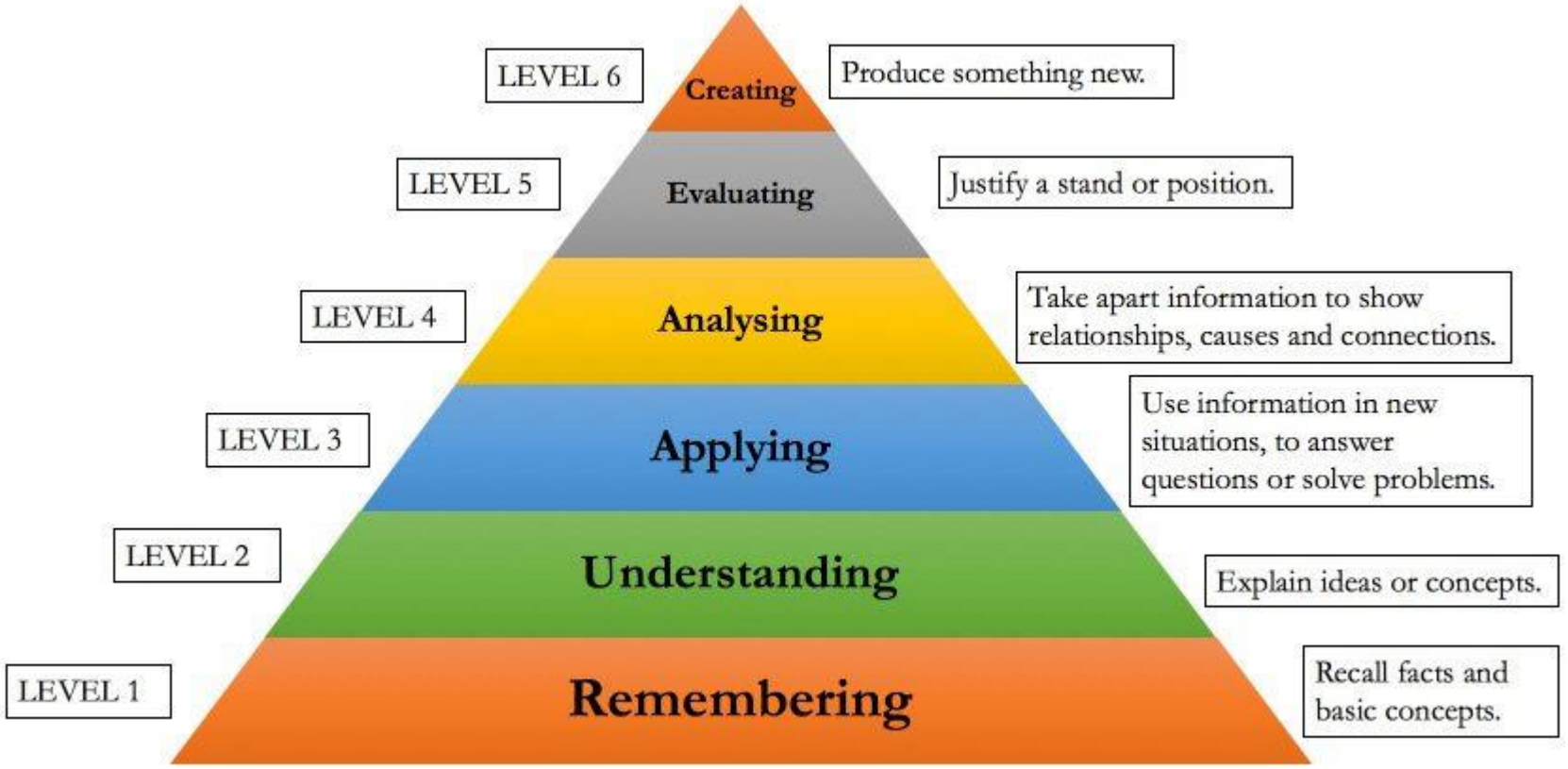




BLOOM'S TAXONOMY : DOMAINS OF LEARNING

Sr. #	Domain of learning	Abbreviation	Levels of the domain	Meaning
1	cognition	C	C1	Recall / Remembering
2			C2	Understanding
3			C3	Applying / Problem solving
4	Psychomotor	P	P1	Imitation / copying
5			P2	Manipulation / Follows instructions
6			P3	Precision / Can perform accurately
7	Attitude	A	A1	Receiving / Learning
8			A2	Respond / Starts responding to the learned attitude
9			A3	Valuing / starts behaving according to the learned attitude

BLOOM'S TAXONOMY OF THE COGNITIVE DOMAIN



CBL

- Case-based learning (CBL) is a teaching method where students learn by analyzing real-life cases and applying their knowledge to solve problems or make decisions. CBL is often used in medical education, where students analyze patient cases to develop diagnostic and treatment skills.

Conducting CBL

- Identify the learning objectives
- Choose a case: Select a real-life case that is relevant to the learning objectives you have identified
- Present the case
- Analyze the case: Have students work in groups to analyze the case
- Develop hypotheses

Conducting CBL (Cont.)

- **Test hypotheses**: Have students test their hypotheses by using relevant diagnostic tests or other methods.
- Discuss the results
- **Evaluate learning**: Evaluate student learning by assessing their ability to analyze the case, develop hypotheses, and apply their knowledge of medical physiology to diagnose and treat the patient.

LEARNING OBJECTIVES

Sr. #	Learning Objective	Domain of Learning
1	To Discuss gross anatomy of Respiratory tract.	C2
2	To Discuss the Case Scenario and Diagnosis.	C2
3	To Explain the Crib Death and its causes.	C3
4	To Describe pathophysiology of Crib Death.	C2
5	To Explain Prevention of Crib death.	C3

TOPIC: WHEEZE/STRIDOR

- **SEQUENCE OF EVENTS:**

- Case (shared with students)
- Time given to read.
- Initial discussion.
- Groups formed.
- Detailed discussion.

Horizontal Integration

Horizontal Integration/Gross Anatomy

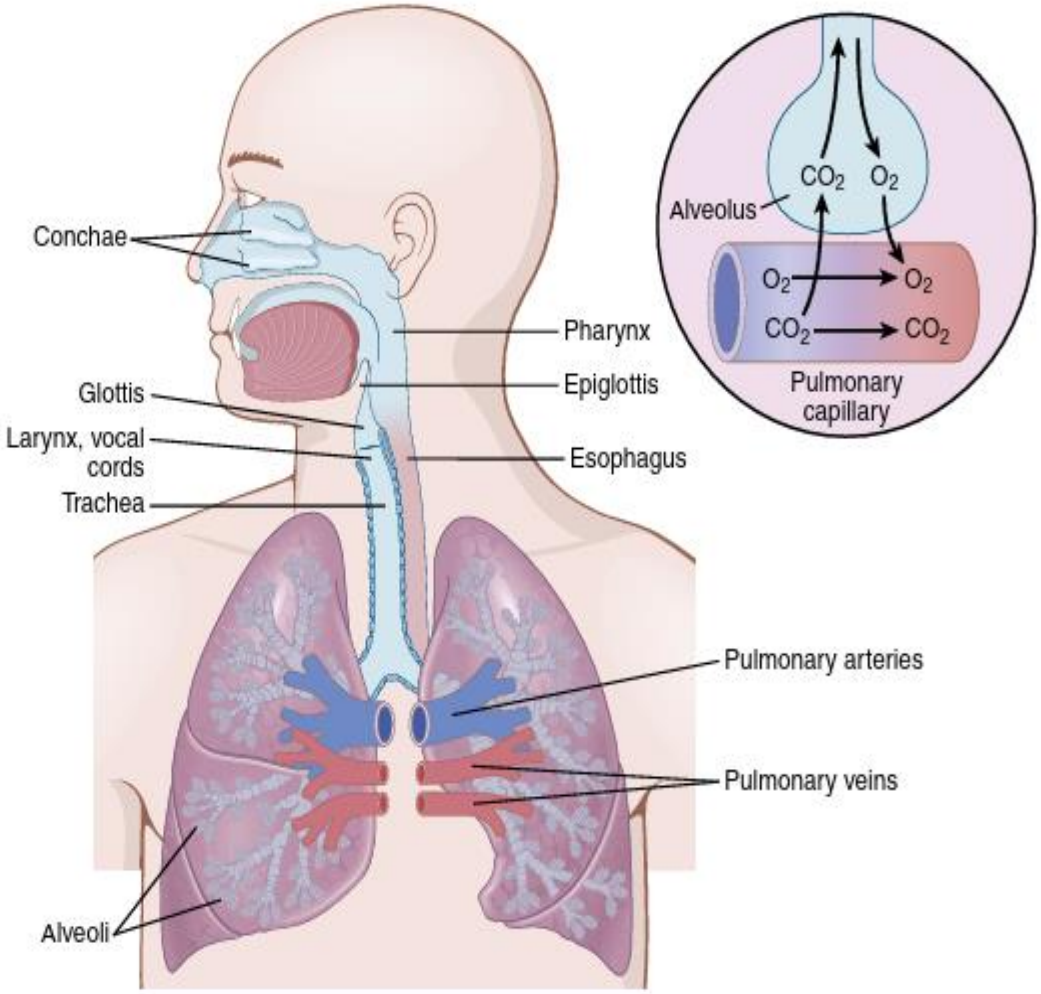


Figure 38-8 Respiratory passages.

Reference: Textbook of Physiology by Gyton and Hall,14th edition Page No.498

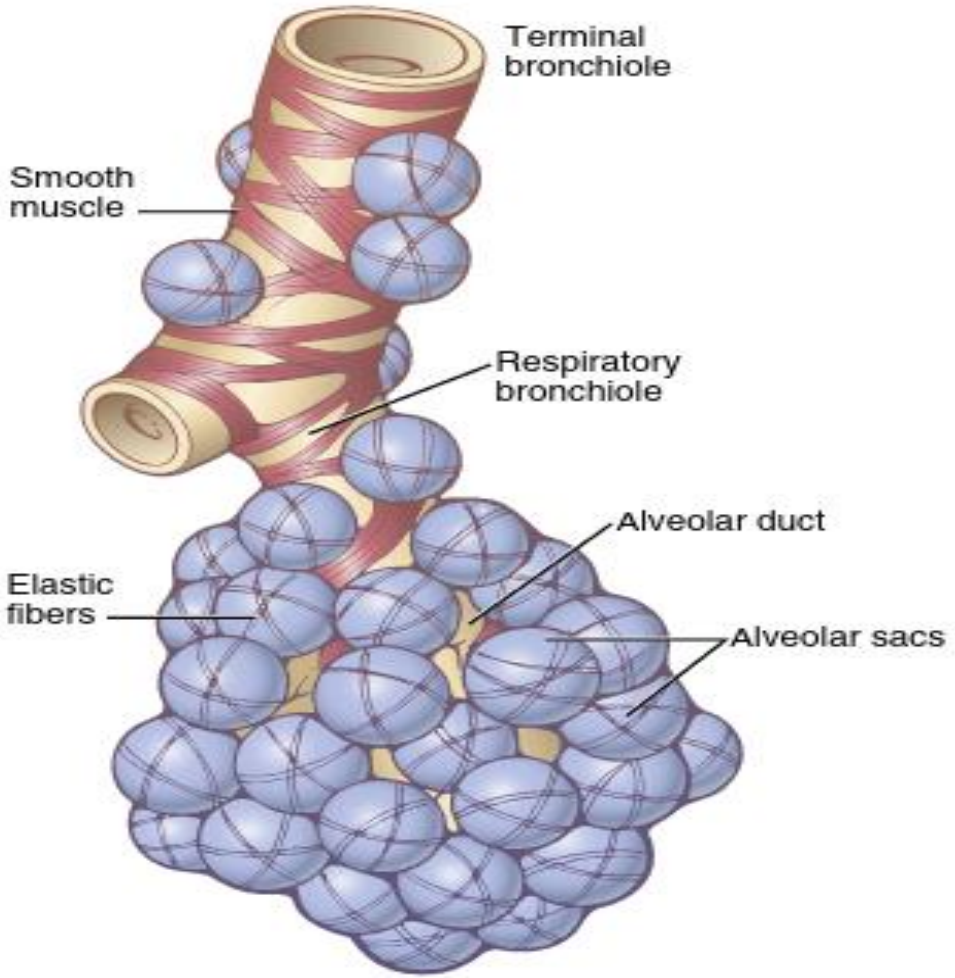


Figure 40-7. Respiratory unit.

Reference: Textbook of Physiology by Gyton and Hall,14th edition Page No.515

Core Concept

CORE CONCEPTS

- What is Crib Death(SIDS)?
- Discuss and explain Sudden Infant Death in detail.
- **Horizontal integration**: Application of Principles of anatomy regarding mechanism of breathing.
- **Vertical integration:** Clinical features of disease/Causes/Precautions.

Core Concept/Vertical Integration with Internal Medicine/ Pulmonology

Crib Death (SIDS)

- Sudden Infant Death Syndrome is the sudden and unexplained death of an infant younger than one year old.
- Sudden Infant Death Syndrome also called as" Crib Death" because many babies who die of SIDS are found in their cribs.

Vertical Integration

(With Clinical and Para-clinical Sciences)

Case Scenario

- A 3-year infant was brought to paediatric emergency early in the morning with loss of consciousness and unresponsive state. On complete examination he was Pulseless, no respiratory and cardiac sounds on auscultation. His mother was a Hookah smoker and he was delivered at 36 week of Gestation .
- A. What is probable diagnosis of this patient?
- B. What is the pathophysiology in this condition?
- C. Describe the causes of this condition.
- D. Explain the precautions to prevent this condition

ANSWER

- Answer: Sudden Infant death Syndrome(Crib Death)

Causes of Crib Death/SIDS

- Brain abnormalities
- Low birth weight
- Respiratory infections
- Sleeping on stomach or side
- Sleeping on soft surface
- Sleeping with parents
- Smoker mother

Vertical Integration with Internal Medicine/ Pulmonology

Prevention of Crib Death

- Place your baby on their back to sleep, in a cot in the room with you.
- Do not smoke during pregnancy or let anyone smoke in the same room as your baby.
- Do not share a bed with your baby if you or your partner smoke or take drugs or if you have been drinking alcohol.
- Never sleep with your baby on a sofa or armchair.

Bioethics
(To Promote Biomedical Ethics)

6 STEPS STRATEGY:-

(BREAKING BAD NEWS)

Setting up and starting. Mentally rehearse and arrange for privacy.

Perception. Elicit the patient's perspective.

Invitation. Ask the patient what they would like to know.

Knowledge. Provide information in small pieces.

Emotions. Recognize and empathize with the patient's emotions.

Strategy and summary. Set out a medical plan of action.

MEDICAL ERROR
(Relevance to the topic)

As in Sudden infant death syndrome , unconscious and non responsive baby receives in hospital . We medical practitioners must follow the 6 steps strategy for breaking bad news.

Suggested Research Article
(To Promote Research Culture)

Scholars Journal of Applied Medical Sciences
Abbreviated Key Title: Sch J App Med Sci
ISSN 2347-954X (Print) | ISSN 2320-6691 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Forensic Medicine

Forensic Autopsy Findings in Determination of the Risk Factors of Sudden Infant Death Syndrome

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Abstract **Original Research Article**

Introduction: Sudden infant death syndrome (SIDS) occurs when a seemingly healthy newborn under the age of one year dies unexpectedly while sleeping. SIDS is often known as crib death because neonates usually die in their cribs. Even after a thorough forensic examination and death site investigation, the general diagnosis of SIDS is made when the cause of infant death cannot be determined. According to the 1969 definition, SIDS is still an excluding diagnosis. Despite the fact that this syndrome has various distinguishing characteristics, such as an age distribution that only affects children under the age of one year and an apparent incidence during sleep, there has been a reluctance to include these characteristics in the classification. The aim of the study was to better understand the risk factors of sudden infant death syndrome (SIDS). ***Methods:*** This cross-sectional analytical study was conducted at the Department of Forensic Medicine, Pabna Medical College Hospital, Pabna, from March 2020 to April 2021, and the participants of the study were 25 sudden and unidentified infant death cases at the study hospital whose guardians had given authorization for inclusion in the study. ***Result:*** The male: female ratio of the present study was 1.27:1. 60% of the participants had died while at home, and no information regarding the activity of infant at time of death was available for 56% of cases. Initial forensic analysis confirmed SIDS in 76% of the cases. Among the SIDS cases, majority had no observable risk factors, but family history of ailments and habits such as heart disorders, respiratory distress and smoking were determined as possible risk factors. Previous history of SIDS in family was also considered as a risk factor. ***Conclusion:*** The location of the infants at the time of death is very important in properly determining cause of death. Better observation of the infants can help in conducting a proper forensic analysis.

Keywords: Sudden, Syndrome, SIDS, Infant, Unknown.

https://saspublishers.com/media/articles/SJAMS_104_458-462_WM1hfQg.pdf

Take Home Message/ Crux of the Suggested Research Article

- The male: female ratio of the present study was 1.27:1. 60% of the participants had died while at home, and no information regarding the activity of infant at time of death was available for 56% of cases.
- Initial forensic analysis confirmed SIDS in 76% of the cases. Among the SIDS cases, majority had no observable risk factors, but family history of ailments and habits such as heart disorders, respiratory distress and smoking were determined as possible risk factors.
- Previous history of SIDS in family was also considered as a risk factor.
- **Conclusion:** The location of the infants at the time of death is very important in properly determining cause of death. Better observation of the infants can help in conducting a proper forensic analysis.

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7. You can find a Journal by clicking on JOURNALS AND DATABASE and enter a keyword to search for your desired journal.

References

Books:

- Guyton And Hall textbook of Medical Physiology 14th Edition
- Ganong's Review of Medical Physiology 25th Edition
- Sherwood, 9th edition.
- Silverthorn Physiology,6th edition
- Vander's Human Physiology,14th edition

Research:

https://saspublishers.com/media/articles/SJAMS_104_458-462_WM1hfOg.pdf

YouTube/videolink:

youtube.com/watch?v=SLU7ckm9qJM


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