



## ACSEP Entrance Examination: FAQs

### What should I study?

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A significant knowledge base in Basic Sciences, as they apply to Sport and Exercise Medicine, is required for success in the examination.

The following topics and suggested readings are a guide only:

#### **Anatomy:**

- General concepts of regional anatomy
- All facets of upper limb anatomy
- All facets of lower limb anatomy
- Thorax- the body wall, the thoracic wall, the thoracic cavity, the superior mediastinum,
- Thoracic osteology
- Abdomen/Pelvis- the anterior and posterior abdominal walls, the pelvic cavity, the urogenital region, the pelvic joints and ligaments, the lumbar and sacral plexuses, pelvic osteology
- Head and Neck- the sternocleidomastoid muscle, the posterior triangle of the neck, the pre-vertebral region, the root of the neck, the cervical plexus
- Spine- the vertebral column, vertebral osteology, the spinal cord

Recommended reading: **Last's Anatomy: Regional and Applied** by Sinnatamby

#### **General Pathology:**

- Cell injury, death and adaptation
- Acute and chronic inflammation
- Tissue repair
- Hemodynamic disorders, thrombosis and shock
- Normal immune responses
- Immune Hypersensitivity and Autoimmune diseases
- Injury by: mechanical trauma, therapeutic drugs, heat/cold, ionizing radiation
- Nutritional diseases
- The musculoskeletal system.
- Primary diseases of myelin
- Diseases of the peripheral nervous system

Recommended reading: **Robbins Basic Pathology** by Kumar, Abbas et al,



**General Physiology:**

- Cellular and molecular basis of medical physiology
- Physiology of nerve and muscle cells
- Control of posture and movement
- Physiological mechanisms of pain
- Autonomic nervous function
- Cardiovascular physiology
- Respiratory physiology
- Renal physiology

Recommended reading: **Ganong's Review of Medical Physiology** by Barrett, Barman et al  
Guyton and Hall Textbook of *Medical Physiology* by Hall.

**Exercise Physiology:**

- Testing methods and nomenclature in exercise physiology
- Skeletal muscle structure, function, control and metabolism at rest and during exercise
- Hormonal regulation at rest and during exercise
- Energy expenditure during exercise including concepts in fatigue
- The cardiovascular system during exercise
- The respiratory system during exercise including Boyle's and Henry's laws
- Cardiorespiratory responses to exercise
- Exercise training methods and application
- Environmental influences on exercise
- Optimisation of exercise performance including nutrition, training and ergogenic aids
- Children, aging and sex difference in sport and exercise

Recommended readings:

1. **Physiology of Sport and Exercise** by Kenney, Wilmore and Costill
2. **Exercise physiology: Nutrition, Energy and Human Performance** by McArdle, Katch and Katch



### **How is the Entrance Exam conducted?**

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The Entrance Exam is held in central location(s) in Australia +/- New Zealand, according to the availability of secure online examination centres and the number of applicants sitting.

Applicants are to arrive at least 15min prior to their section of the Exam commencing to advise their attendance of the Exam section.

All sections of the Exam are computer-based.

Applicants must leave phones, bags, smart watches, calculators, study notes/resources and all other items in an allocated section within the exam centre (usually within a locker or at the front of the exam room). Blank paper and pens will be available for making notes. The computers have a clock to help candidates monitor time as they progress through the exam.

Applicants can bring a bottle of water to have at their desk but are not allowed to eat during the exam (unless special consideration has been sort and approved by the ACSEP Examination and Assessment Committee).

Transportation to and from the Exam and accommodation, if required are costs incurred at the expense of the Applicant.

The usual Exam timeframes are (Applicants will be provided with a firm timeline on confirmation of Exam booking):

- Part A - Anatomy 9:30am - 12:00pm 2.5 hours
- Lunch break – 1 hour
- Part B - Physiology 1:00pm - 3:30pm 2.5 hours
- Part C - Exercise Physiology (RPL only) 1:00pm - 2:00pm 1 hour

### **What do the multiple-choice questions look like?**

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All questions require the candidate to choose a single most correct completion or answer from five options (A,B,C,D,E) and record their choice on an answer sheet. Negative marking is not used.

#### ***Examples of this question type***

1. Which of the following statements about the sciatic nerve is correct?
  - A. It always emerges from below the piriformis muscle
  - B. It passes vertically over the anterior aspect of the obturator internus
  - C. It is crossed in the thigh posteriorly by the long head of biceps
  - D. It is completely made up of nerve fibres from the L5, S1, S2 and S3 levels
  - E. It does not contact any bony structures in the buttock

(Correct response C)

2. In physiological measurements, mixed venous blood is sampled from the:



- A. Superior vena cava
- B. Inferior vena cava
- C. Right atrium
- D. Pulmonary vein
- E. Pulmonary artery

(Correct response is E)

3. What is the nerve supply of the deltoid muscle?

- A. Suprascapular nerve
- B. Axillary nerve
- C. Musculocutaneous nerve
- D. Accessory spinal nerve
- E. Lateral pectoral nerve

(Correct response is B)

4. Cell membranes:

- A. Are freely permeable to electrolytes but not to proteins
- B. Contain relatively few protein molecules
- C. Contain many carbohydrate molecules
- D. Have variable protein contents depending on their location in the cell
- E. Have a stable composition throughout the life of the cell

(Correct response is D)