

**DEPARTMENT OF RENAL MEDICINE**

**UCL Applied Renal Physiology Course**

**Live streamed on 12 – 14 May 2021**

This unique course integrates the understanding of physiology and electrolyte and acid/base disorders that many find confusing.

It features lectures from international physiology and nephrology experts and small group case discussions to ground participants in the pathophysiology and clinical management of electrolyte and acid/base disorders and hypertension and fluid management.

The course will be live-streamed and include real-time audience-response questions allowing you to pose specific questions to our expert faculty.  In addition, we will hold small group case discussions on Zoom.  Links to the video recordings of the presentations will be available after the course.

**Course content**

Day 1:  Wednesday 12th May 2021 - 09:30 - 17:15 hrs (BST/UTC +1)

Module 1: Primer in renal physiology

* Nephron overview
* Glomerular function
* Proximal tubular function
* Water handling in the nephron
* Distal tubular function
* Renal tubular acidosis

Module 1 is intended to act as a refresher in the basics of renal physiology for those whose memories from medical school are too hazy. Module 2 in the afternoon provides an update in applied renal physiology.

Module 2: Applied renal physiology

* Molecular mechanisms of hypertension
* Endothelins and blood pressure homeostasis

**Day 2:  Thursday 13th May 2021** - 09:30 - 17:15 hrs (BST/UTC +1)

**Module 3:  Fluids, electrolytes, and acid-base (Part 1)**

* Acid-base physiology
* Metabolic acidosis and alkalosis
* Acid-base small group case workshops
* Renal physiology quiz
* Hyponatraemia
* Hypernatraemia
* Sodium small group case workshops

**Day 3:  Friday 14th May 2021** - 09:30 - 17:15 hrs (BST/UTC +1)

**Module 3: Fluids, electrolytes and acid-base (Part 2)**

* Hypokalaemia
* Hyperkalaemia
* Hypophosphataemia
* Magnesium disorders
* Calcium homeostasis and the kidney
* PO4Mg/K/Ca small group case workshops
* IV Fluid therapy
* Diuretics
* MCQs in Renal Physiology

Module 3 which is run over day 2 and 3, provides a comprehensive overview of fluids, electrolytes and acid-base for clinicians and will cover background physiology and clinical sciences.  Each day will feature small group interactive workshops.  These two days will particularly benefit those practicing in nephrology, critical care, or any acute medical specialities.

**Who is this course for?**

The course is aimed at trainees in renal medicine but will also be of interest to other healthcare professionals involved in the management of patients with chronic renal failure.

**Accreditation**

During the current pandemic, the Royal College of Physicians (RCP UK) are awarding the same number of CPD credits for a live-streamed event as they would for a live event. In previous years, the course has been awarded 18 category 1 (external) CPD credits, and we anticipate this year’s course will be awarded the same number. The RCP have also stated that participants accessing the archived version of an event can record this in their CPD diary using the approval code for up to four weeks after the event.

Further information and the link to online booking can be found on the course webpage [here.](https://www.ucl.ac.uk/nephrology/renal-short-courses/applied-renal-physiology-course)

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**DEPARTMENT OF RENAL MEDICINE**

**Course Admin**

Kate Henderson

UCL Department of Renal Medicine

Royal Free Campus

Rowland Hill Street

London NW3 2PF

Tel:  +44 (0) 20 8016 8264

Email: Med.Cfnevents@ucl.ac.uk