

**Syllabus**  
**Pathological Physiology 1**  
**Winter Semester 2022/2023**  
**Week 11**

**General Medicine**

**A. Lecture**

1. **Pathogenesis VI**

- Stress - etiology; neurogenic and humoral afferent and efferent mechanisms; cortical - visceral concepts
- Stress – concepts; clinical forms; general adaptation sy., maladaptation
- Stress - related disorders
- Cellular stress

**B. Seminars according to schedules on department webpage (patfyz.medic.upjs.sk)**

1. **T: Stress**

- Maladaptation diseases
- Molecular pathogenesis of stress

2. **S: Oxidative stress**

- Reactive oxygen species, antioxidants, glycation damage

3. Examination of knowledge (quiz, oral examination)

4. Presentations of the selected topics according to the group schedules

**Dental Medicine**

**A. Lecture**

1. **Pathogenesis VI**

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**B. Seminars according to schedules on department webpage (patfyz.medic.upjs.sk)**

1. **T: Stress**

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**Seminars (S)** = special topics for discussion; **Tutorials & homeworks & exams (T)** = discussions, consultations, oral and quiz exams on the current topics.

**Note:** The range of topics and their time-table during the tutorials and seminars in each group is determined by the teacher and to a large extent, by the presentations, consultation interests, questions and readiness of the group and may vary in between groups. Neither tutorials nor seminars are lectures, but dialogue and discussion and thus require an active participation and preparation of students for the topics.

**Recommended audiovisual materials**

Stress

- Stress Response in Animation <https://www.youtube.com/watch?v=BlfKOL8xDPO>

- Hans Selye's General Adaption Syndrome and the HPA Axis: Exploring the Connection <https://www.youtube.com/watch?v=9FdmxfXrygA>
- The Fight Flight Freeze Response <https://www.youtube.com/watch?v=jEHwB1PG-Q>
- Fight or flight response <https://www.youtube.com/watch?v=8ayBkYOAGBA>
- Posttraumatic stress disorder (PTSD) - an Osmosis Preview <https://www.youtube.com/watch?v=DP3dvAPcUjw>
- Student video - Stress and the immune system <https://www.youtube.com/watch?v=zfkDhtFerxo>
- Burnout - Causes, symptoms and treatment <https://www.youtube.com/watch?v=aVk02DiUUPo>
- Takotsubo Cardiomyopathy (Broken heart syndrome) - pathophysiology, diagnosis and treatment <https://www.youtube.com/watch?v=d15kbYySnoY>
- Psychiatry – Anxiety Disorders: By Nikola Grujich M.D. <https://www.youtube.com/watch?v=MtLaiCThT0>

#### Oxidative stress

- Free radical damage - causes, symptoms, diagnosis, treatment, pathology <https://www.youtube.com/watch?v=2ZRAUO51Wf8>
- What are Advanced Glycation End Products or A.G.E.s <https://www.youtube.com/watch?v=l2wZYzuvQRQ>