

LF3 Pathophysiology exam questions 2020

Under construction / Forgotten

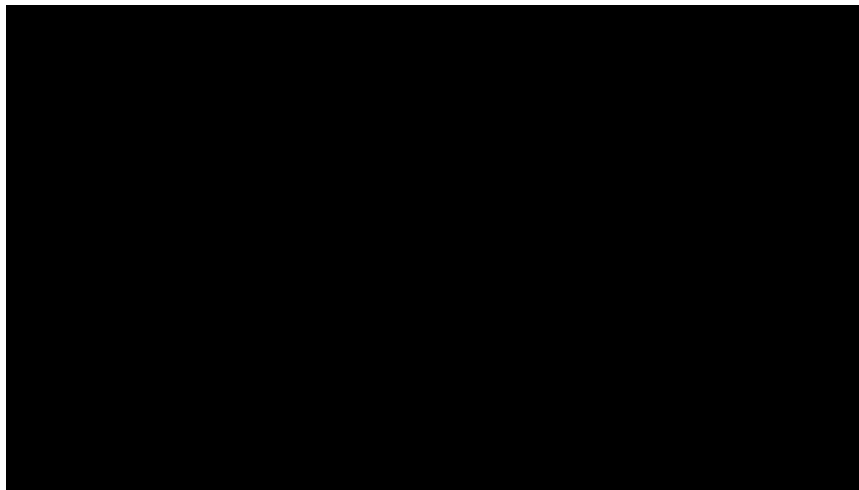
This article was marked by its author as *Under construction*, but the last edit is older than 30 days. If you want to edit this page, please try to contact its author first (you will find him in the history (https://www.wikilectures.eu/index.php?title=LF3_Pathophysiology_exam_questions_2020&action=history)). Watch the page as well. If the author will not continue in work, remove the template `{{Under construction}}` and the page.

Last update: Sunday, 22 Jan 2023 at 1.05 pm.

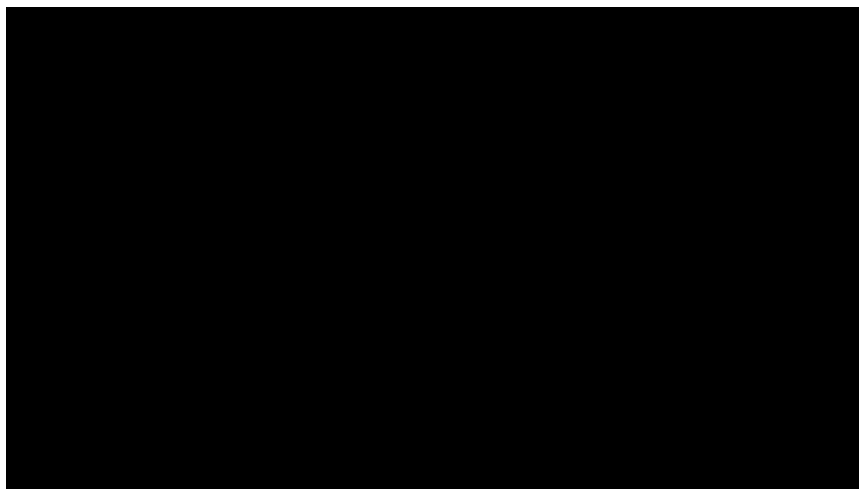
- **Timestamps** of the exact time of the video where the answer is hidden will be added soon.

1. Sleep disorders, EEG

<https://www.wikilectures.eu/w/Sleep>



2. Acid-base balance disturbances, overview



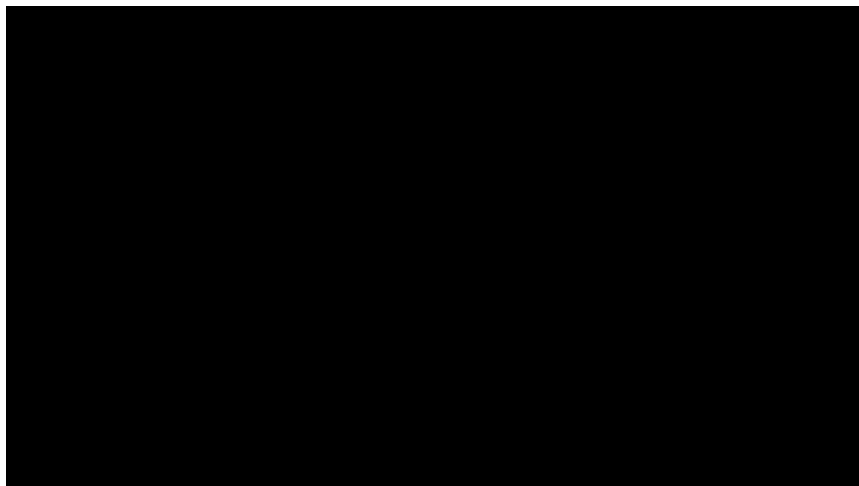
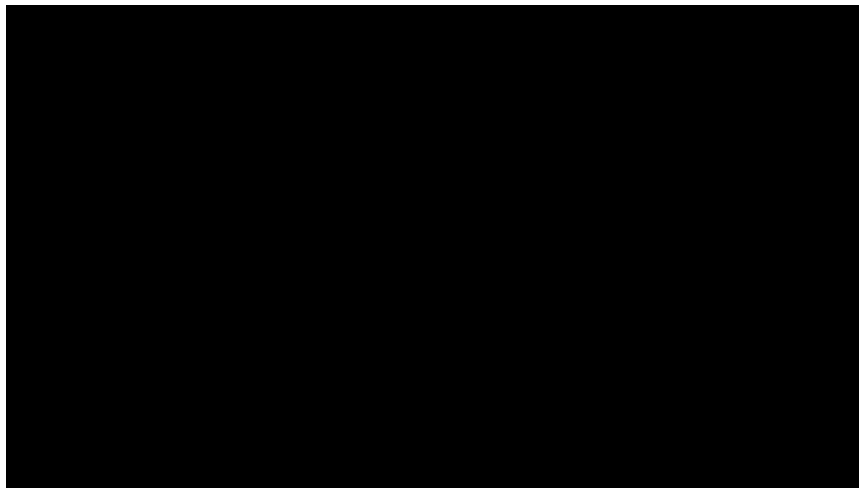
COPD



3. Acute complications of diabetes mellitus

https://www.wikilectures.eu/w/Acute_complications_of_diabetes_mellitus

4. Acute pressure changes in systemic circulation (causes and consequences)



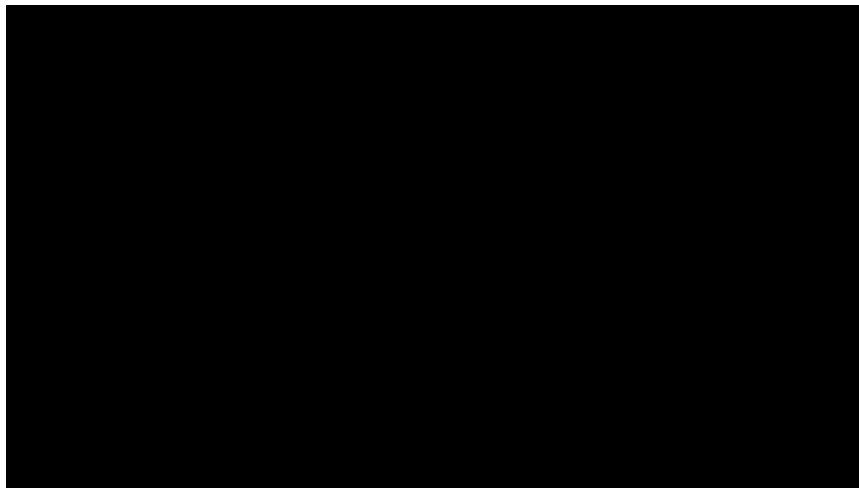
5. Acute stress reaction, cardiovascular and metabolic changes

6. Arrhythmias - overview

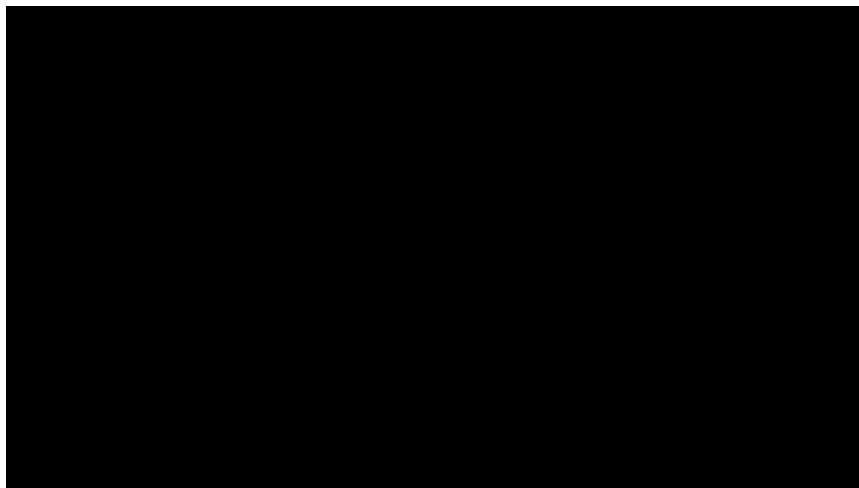
Sinus and supraventricular rhythms



Extrasystole



AV blocks



7. Balance disturbances: Na, K (regulation, losses, consequences)

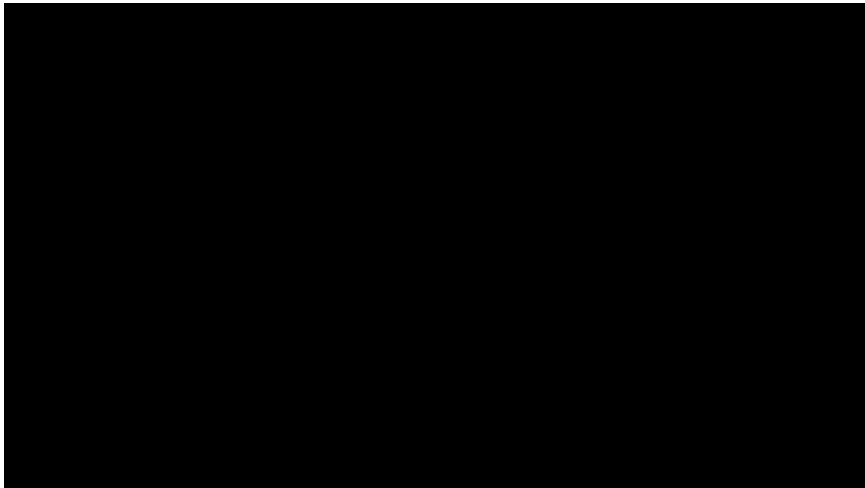
E.g.: Hyperaldosteronism



Secondary hyperaldosteronism



Addison's disease



SIADH



Hypernatremia - 3 patients

[illegible]

8. Blood gas transport disorder - overview

Hypoxia - table

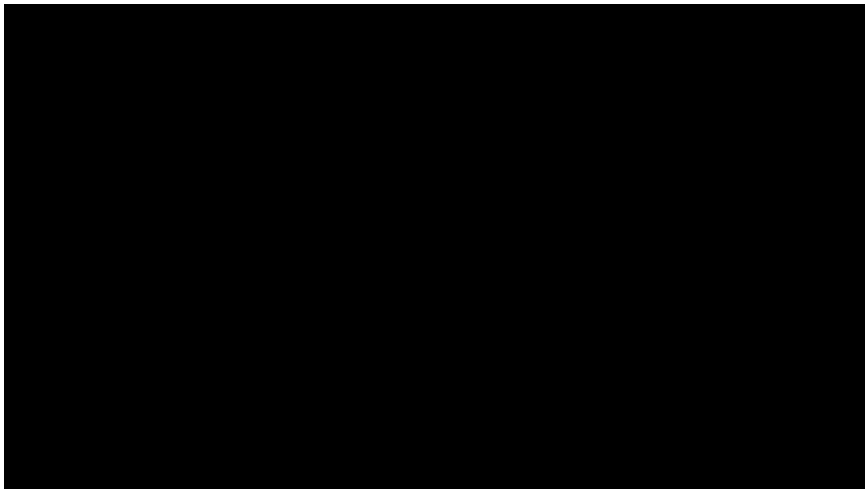
the 1990s, the number of people in the United States who are 65 years of age or older has increased by 50 percent, and the number of people 75 years of age or older has increased by 100 percent. The number of people 85 years of age or older has increased by 200 percent. The number of people 90 years of age or older has increased by 400 percent. The number of people 95 years of age or older has increased by 800 percent. The number of people 100 years of age or older has increased by 1,600 percent. The number of people 105 years of age or older has increased by 3,200 percent. The number of people 110 years of age or older has increased by 6,400 percent. The number of people 115 years of age or older has increased by 12,800 percent. The number of people 120 years of age or older has increased by 25,600 percent. The number of people 125 years of age or older has increased by 51,200 percent. The number of people 130 years of age or older has increased by 102,400 percent. The number of people 135 years of age or older has increased by 204,800 percent. The number of people 140 years of age or older has increased by 409,600 percent. The number of people 145 years of age or older has increased by 819,200 percent. The number of people 150 years of age or older has increased by 1,638,400 percent. The number of people 155 years of age or older has increased by 3,276,800 percent. The number of people 160 years of age or older has increased by 6,553,600 percent. The number of people 165 years of age or older has increased by 13,107,200 percent. The number of people 170 years of age or older has increased by 26,214,400 percent. The number of people 175 years of age or older has increased by 52,428,800 percent. The number of people 180 years of age or older has increased by 104,857,600 percent. The number of people 185 years of age or older has increased by 209,715,200 percent. The number of people 190 years of age or older has increased by 419,430,400 percent. The number of people 195 years of age or older has increased by 838,860,800 percent. The number of people 200 years of age or older has increased by 1,677,721,600 percent. The number of people 205 years of age or older has increased by 3,355,443,200 percent. The number of people 210 years of age or older has increased by 6,710,886,400 percent. The number of people 215 years of age or older has increased by 13,421,772,800 percent. The number of people 220 years of age or older has increased by 26,843,545,600 percent. The number of people 225 years of age or older has increased by 53,687,091,200 percent. The number of people 230 years of age or older has increased by 107,374,182,400 percent. The number of people 235 years of age or older has increased by 214,748,364,800 percent. The number of people 240 years of age or older has increased by 429,496,729,600 percent. The number of people 245 years of age or older has increased by 858,993,459,200 percent. The number of people 250 years of age or older has increased by 1,717,986,918,400 percent. The number of people 255 years of age or older has increased by 3,435,973,836,800 percent. The number of people 260 years of age or older has increased by 6,871,947,673,600 percent. The number of people 265 years of age or older has increased by 13,743,895,347,200 percent. The number of people 270 years of age or older has increased by 27,487,790,694,400 percent. The number of people 275 years of age or older has increased by 54,975,581,388,800 percent. The number of people 280 years of age or older has increased by 109,951,162,777,600 percent. The number of people 285 years of age or older has increased by 219,902,325,555,200 percent. The number of people 290 years of age or older has increased by 439,804,651,110,400 percent. The number of people 295 years of age or older has increased by 879,609,302,220,800 percent. The number of people 300 years of age or older has increased by 1,759,218,604,441,600 percent. The number of people 305 years of age or older has increased by 3,518,437,208,883,200 percent. The number of people 310 years of age or older has increased by 7,036,874,417,766,400 percent. The number of people 315 years of age or older has increased by 14,073,748,835,532,800 percent. The number of people 320 years of age or older has increased by 28,147,497,671,065,600 percent. The number of people 325 years of age or older has increased by 56,294,995,342,131,200 percent. The number of people 330 years of age or older has increased by 112,589,990,684,262,400 percent. The number of people 335 years of age or older has increased by 225,179,981,368,524,800 percent. The number of people 340 years of age or older has increased by 450,359,962,737,049,600 percent. The number of people 345 years of age or older has increased by 900,719,925,474,099,200 percent. The number of people 350 years of age or older has increased by 1,801,439,850,948,198,400 percent. The number of people 355 years of age or older has increased by 3,602,879,701,896,396,800 percent. The number of people 360 years of age or older has increased by 7,205,759,403,792,793,600 percent. The number of people 365 years of age or older has increased by 14,411,518,807,585,587,200 percent. The number of people 370 years of age or older has increased by 28,823,037,615,171,174,400 percent. The number of people 375 years of age or older has increased by 57,646,075,230,342,348,800 percent. The number of people 380 years of age or older has increased by 115,292,150,460,684,697,600 percent. The number of people 385 years of age or older has increased by 230,584,300,921,369,395,200 percent. The number of people 390 years of age or older has increased by 461,168,601,842,738,790,400 percent. The number of people 395 years of age or older has increased by 922,337,203,685,477,580,800 percent. The number of people 400 years of age or older has increased by 1,844,674,407,370,955,161,600 percent. The number of people 405 years of age or older has increased by 3,689,348,814,741,910,323,200 percent. The number of people 410 years of age or older has increased by 7,378,697,629,483,820,646,400 percent. The number of people 415 years of age or older has increased by 14,757,395,258,967,641,292,800 percent. The number of people 420 years of age or older has increased by 29,514,790,517,935,282,585,600 percent. The number of people 425 years of age or older has increased by 59,029,581,035,870,565,171,200 percent. The number of people 430 years of age or older has increased by 118,059,162,071,741,130,342,400 percent. The number of people 435 years of age or older has increased by 236,118,324,143,482,260,684,800 percent. The number of people 440 years of age or older has increased by 472,236,648,286,964,521,369,600 percent. The number of people 445 years of age or older has increased by 944,473,296,573,929,042,739,200 percent. The number of people 450 years of age or older has increased by 1,888,946,593,147,858,085,478,400 percent. The number of people 455 years of age or older has increased by 3,777,893,186,295,716,170,956,800 percent. The number of people 460 years of age or older has increased by 7,555,786,372,591,432,341,913,600 percent. The number of people 465 years of age or older has increased by 15,111,572,745,182,864,683,827,200 percent. The number of people 470 years of age or older has increased by 30,223,145,490,365,729,367,654,400 percent. The number of people 475 years of age or older has increased by 60,446,290,980,731,458,735,308,800 percent. The number of people 480 years of age or older has increased by 120,892,581,961,462,917,470,617,600 percent. The number of people 485 years of age or older has increased by 241,785,163,922,925,834,941,235,200 percent. The number of people 490 years of age or older has increased by 483,570,327,845,851,669,882,470,400 percent. The number of people 495 years of age or older has increased by 967,140,655,691,703,339,764,940,800 percent. The number of people 500 years of age or older has increased by 1,934,281,311,383,406,679,529,881,600 percent. The number of people 505 years of age or older has increased by 3,868,562,622,766,813,359,059,763,200 percent. The number of people 510 years of age or older has increased by 7,737,125,245,533,626,718,119,526,400 percent. The number of people 515 years of age or older has increased by 15,474,250,491,067,253,436,239,052,800 percent. The number of people 520 years of age or older has increased by 30,948,500,982,134,506,872,478,105,600 percent. The number of people 525 years of age or older has increased by 61,897,001,964,269,013,744,956,211,200 percent. The number of people 530 years of age or older has increased by 123,794,003,928,538,027,489,912,422,400 percent. The number of people 535 years of age or older has increased by 247,588,007,857,076,054,979,824,844,800 percent. The number of people 540 years of age or older has increased by 495,176,015,714,152,109,959,649,689,600 percent. The number of people 545 years of age or older has increased by 990,352,031,428,304,219,919,299,379,200 percent. The number of people 550 years of age or older has increased by 1,980,704,062,856,608,439,838,598,758,400 percent. The number of people 555 years of age or older has increased by 3,961,408,125,713,216,879,677,197,516,800 percent. The number of people 560 years of age or older has increased by 7,922,816,251,426,433,759,354,395,033,600 percent. The number of people 565 years of age or older has increased by 15,845,632,502,852,867,518,708,790,067,200 percent. The number of people 570

O2 delivery formula:



9. Blood pressure regulation and its disorders

e.g.: Primary hyperaldosteronism



Secondary hyperaldosteronism



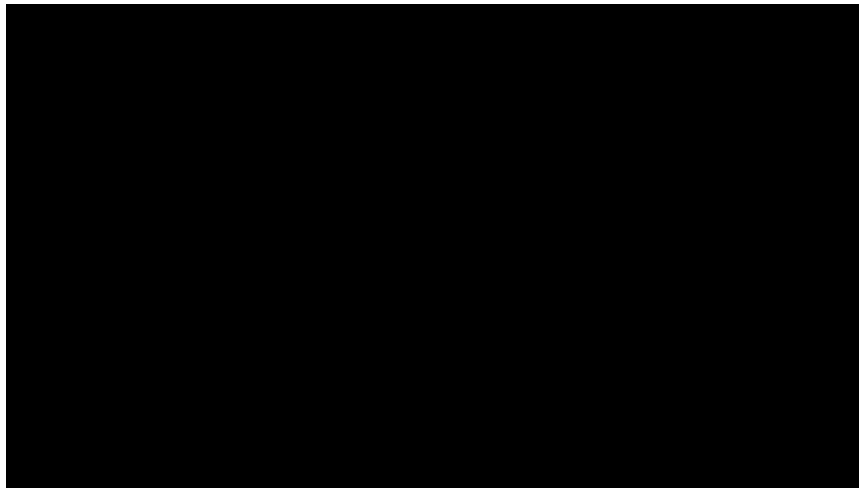
Shock - table



Do not forget neuropathies, where also ANS can be impaired...

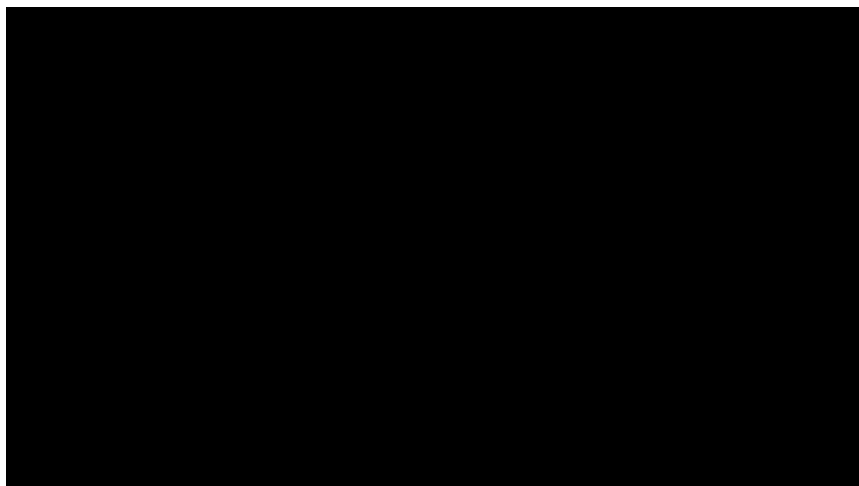
10. Long lasting starvation consequences, catabolic states (examples), immobilisation

11. Causes and consequences of extracorporeal fluid loss (bleeding, vomiting, diarrhea, etc.)



12. Causes and consequences of arterial hypertension

e.g.: Primary hyperaldosteronism

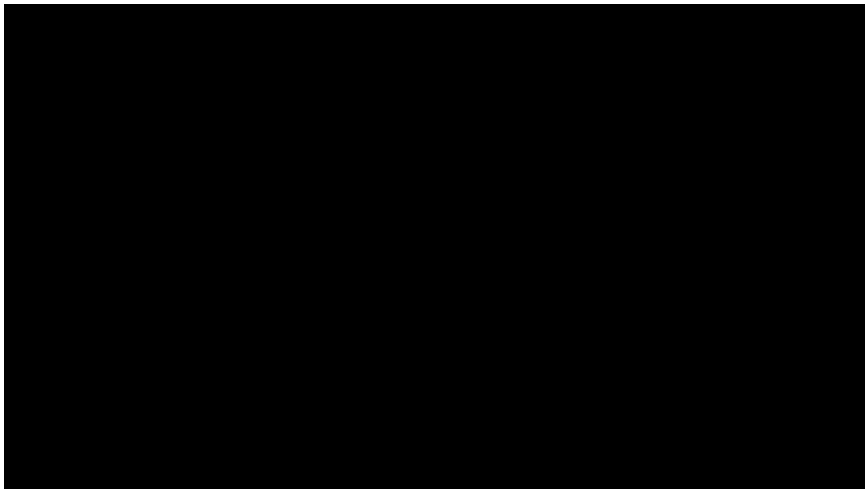


Secondary hyperaldosteronism



13. Causes and consequences of hypoventilation

Respiratory acidosis



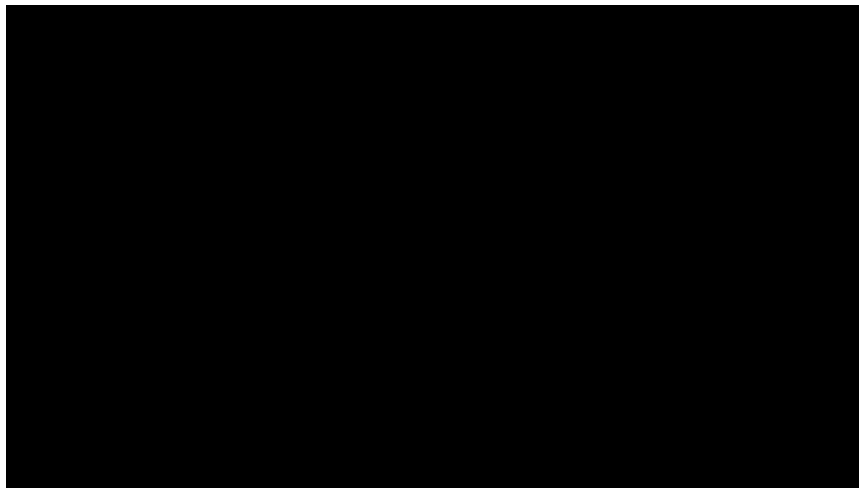
Hypoxia - table



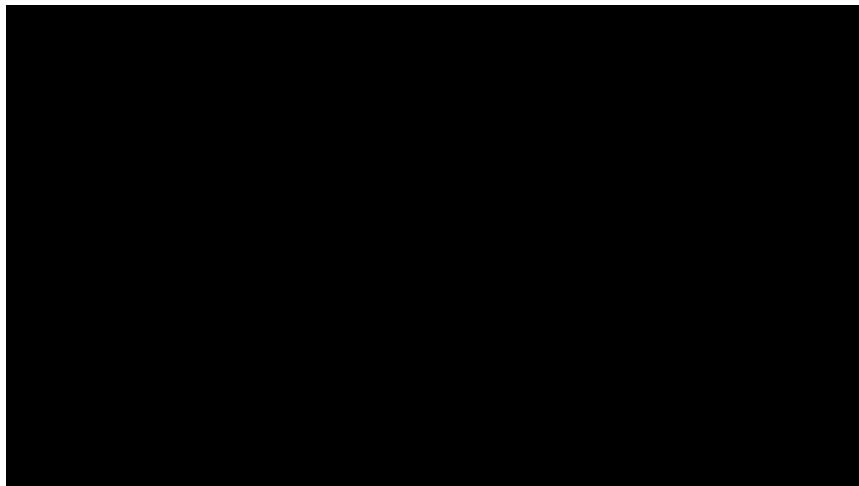
Hypoxic hypoxia - V/Q mismatch



Cyanosis



14. Causes and consequences of local edemas (compartment syndrome)



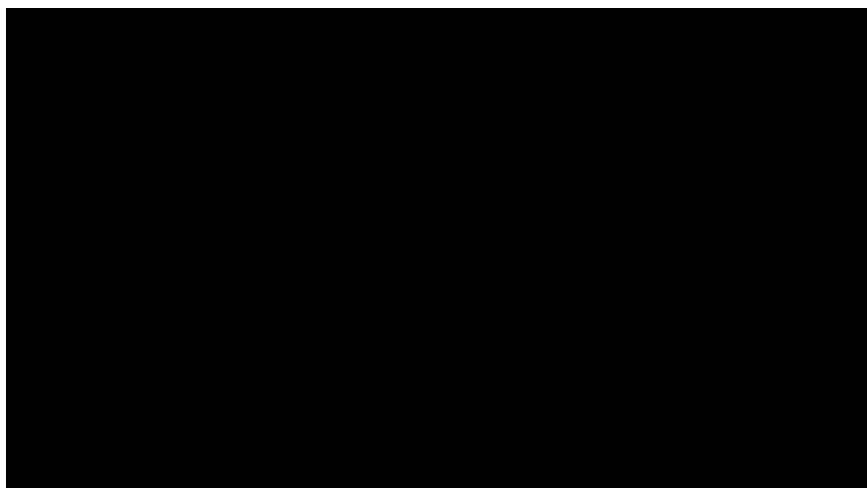
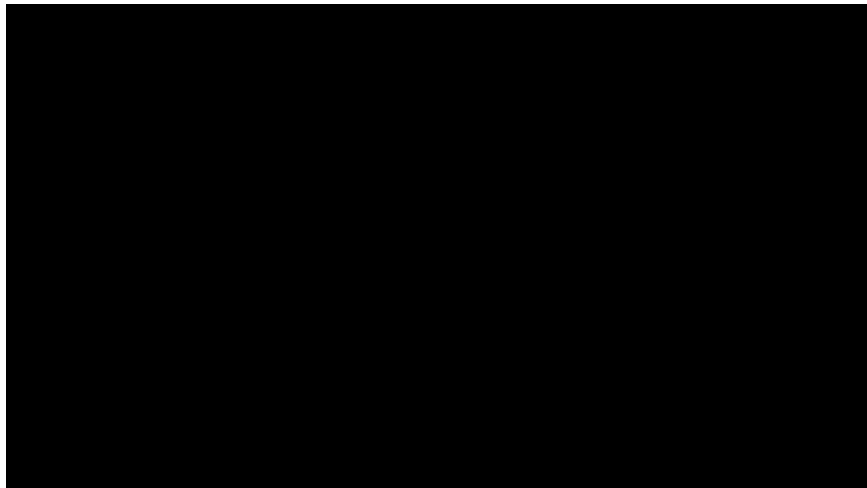
15. Causes and consequences of osmolarity changes in extracellular



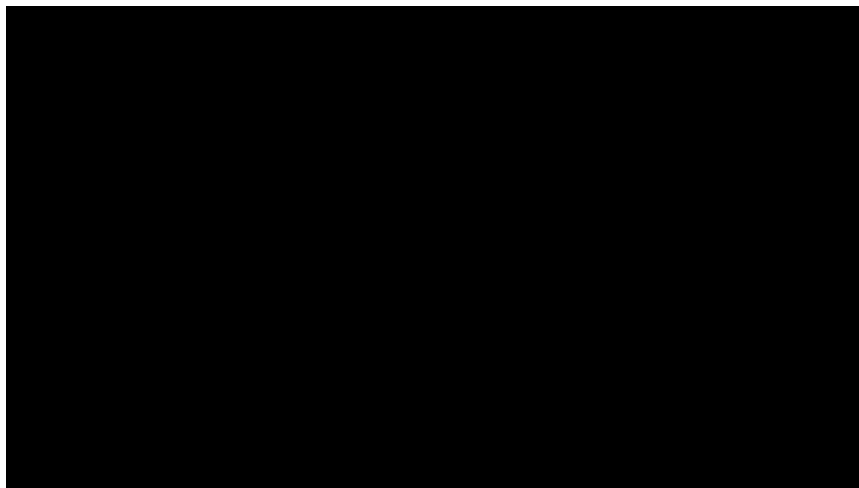
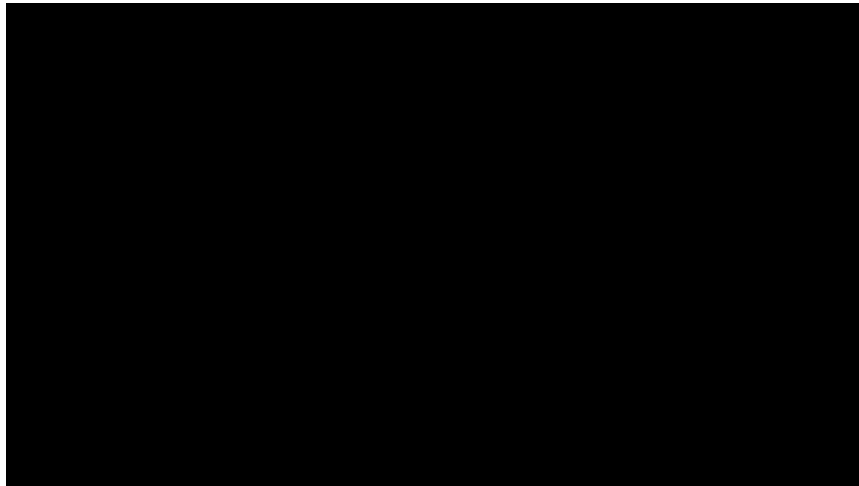
16. Causes and consequences of potassium level changes

17. Causes of arrhythmia (extra- and intracardial)

E.g.



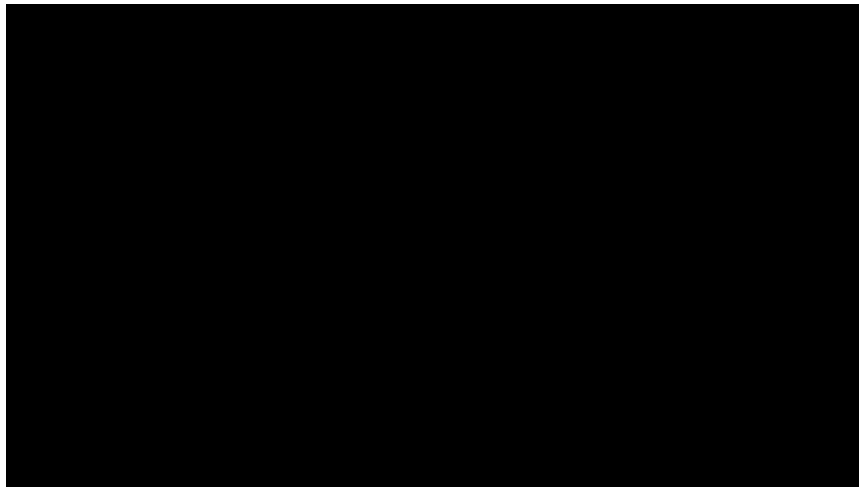
18. Circulatory shock states (definition and general division), differences in compensation



19. Compensatory mechanisms during hypovolemic shock

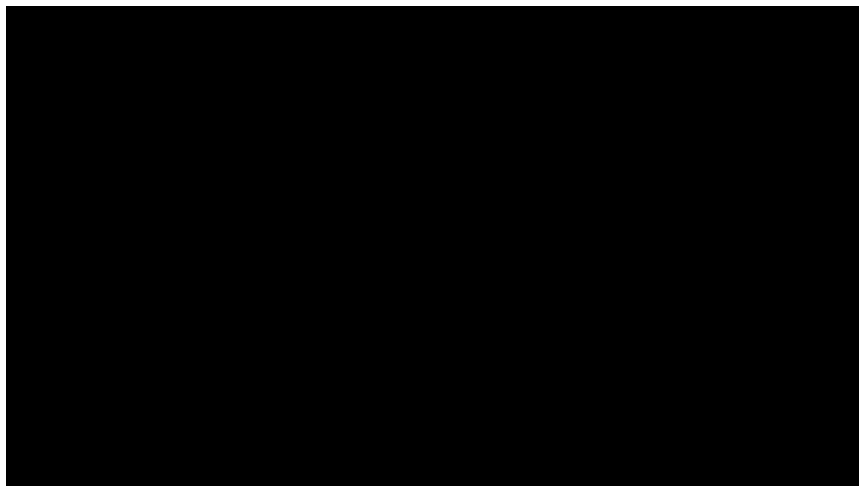


20. Compensatory mechanisms during shock states (comparison and importance)



21. Conduction abnormalities in the heart

AV blocks



22. Disorders of consciousness (general mechanisms of origin, brain death)

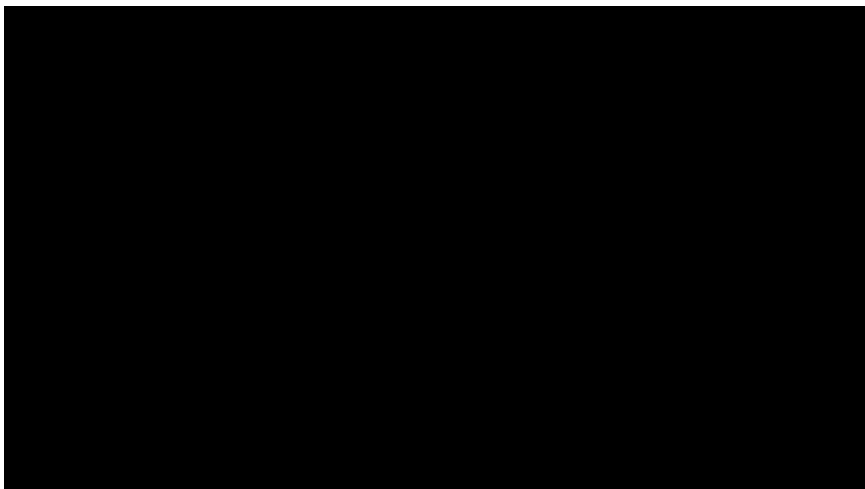
Consciousness - quantity



Consciousness - quality



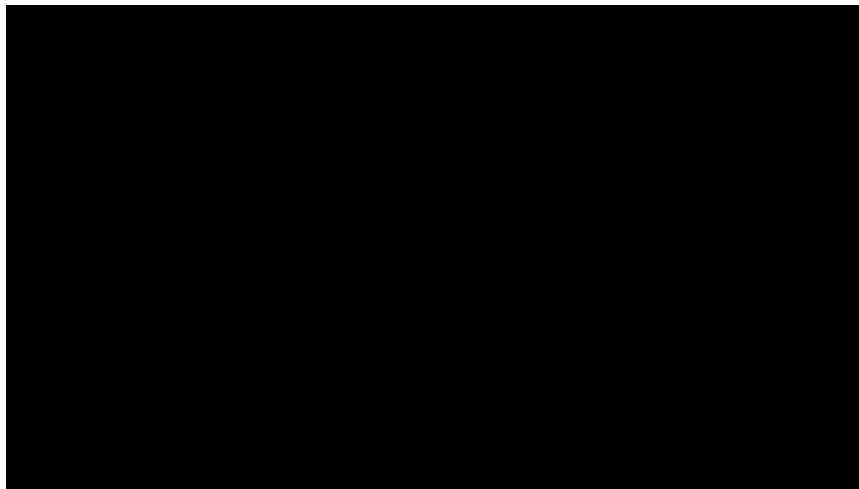
tLOC



Prolonged loss of consciousness



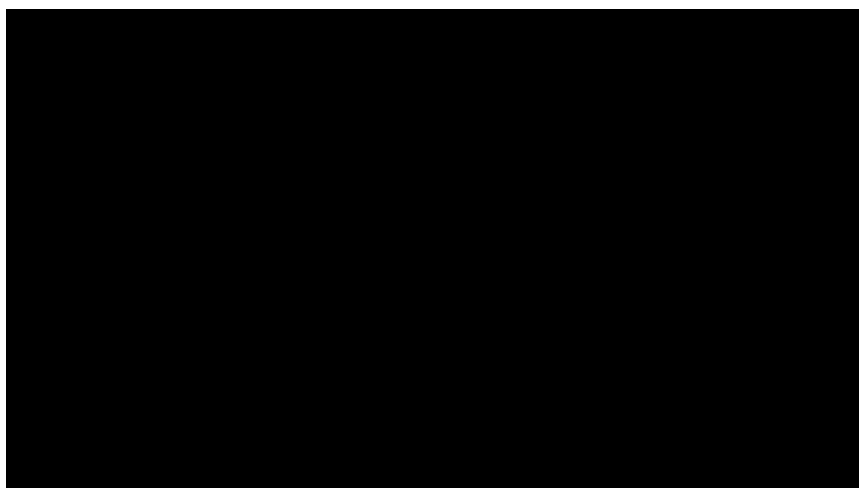
Brain death



23. Consequences of acute and chronic bleeding (compensation)

Acute bleeding

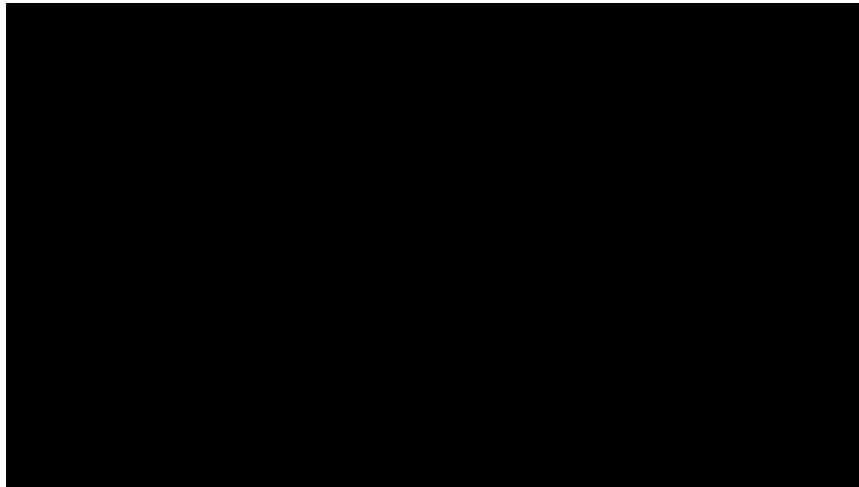
e.g. circulatory shock



e.g. sideropenic anemia as a consequence of chronic bleeding



e.g. definition of anemia

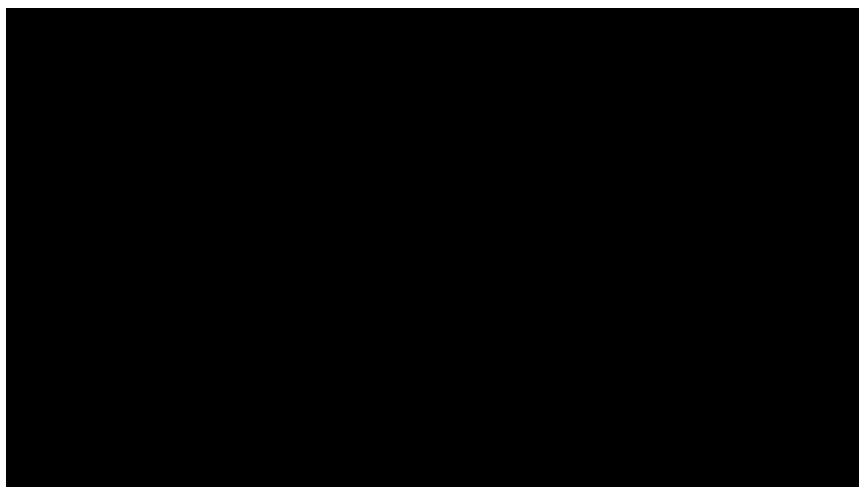


24. Consequences of chronic stress

25. Poisonings affecting the autonomic nervous system - organophosphates, atropine, muscarinic, cocaine

26. Dehydration (types, causes and consequences)

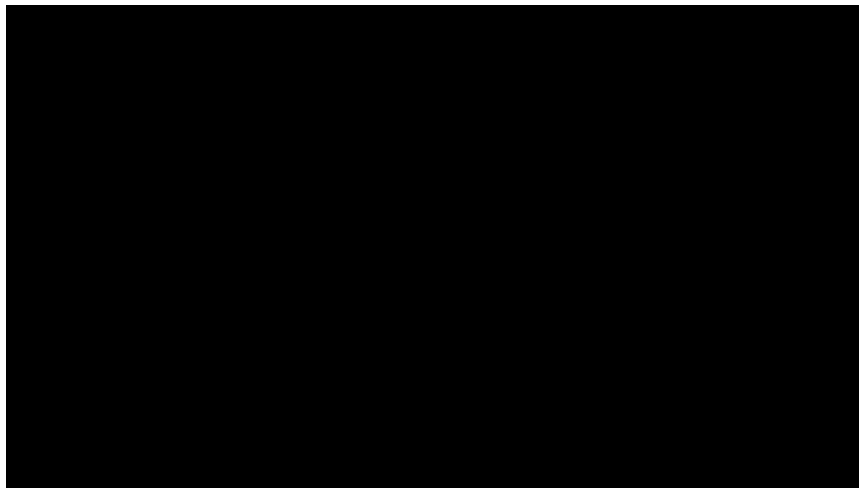
isotonic dehydration



hypotonic dehydration



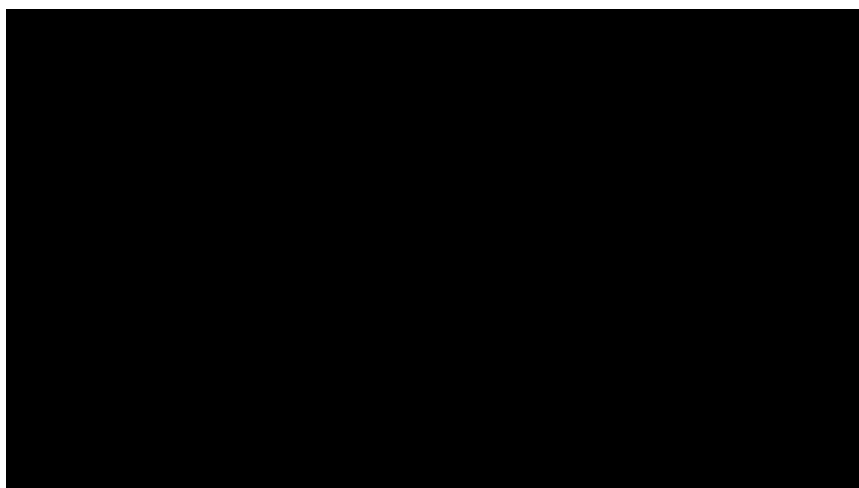
hypertonic dehydration



27. Hyperglycemia (causes and consequences)

e.g. in Cushing's disease https://www.wikilectures.eu/w/Cushing%27s_disease

28. Disorders of fluid balance (causes and consequences)

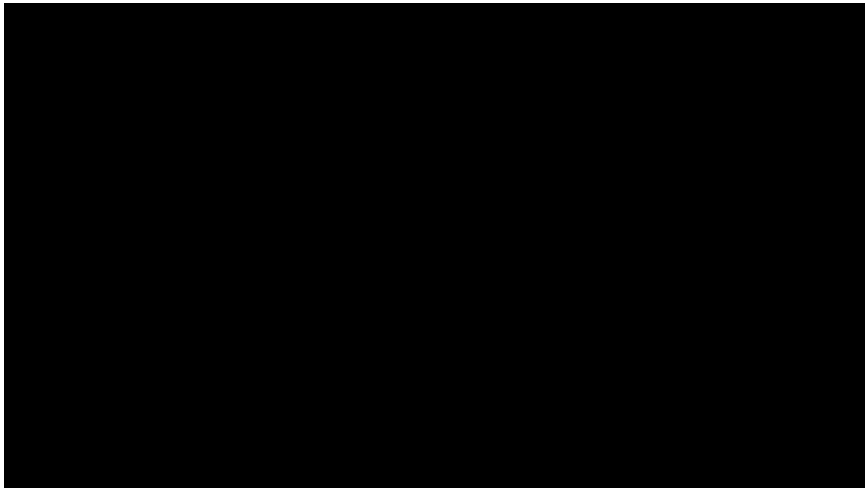


29. Disorders of heart signal generation

Sinus and supraventricular = atrial rhythm



Extrasystole

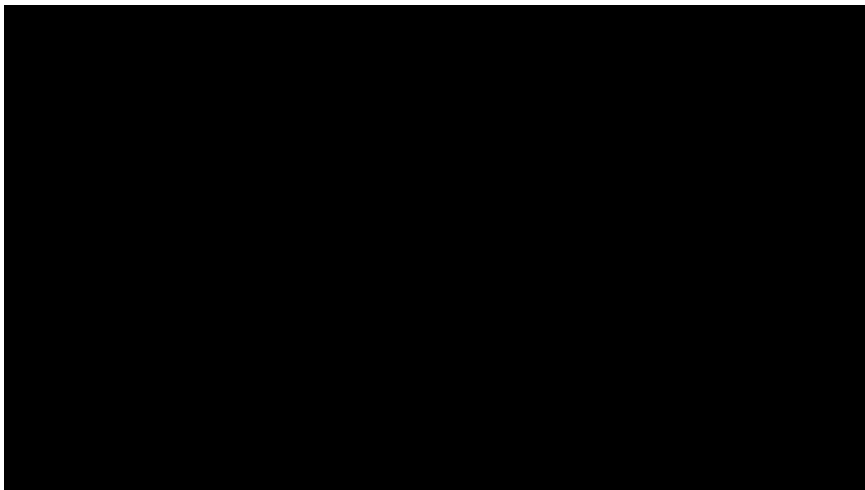


30. Distributive shock, mechanisms, compensation





Septic table

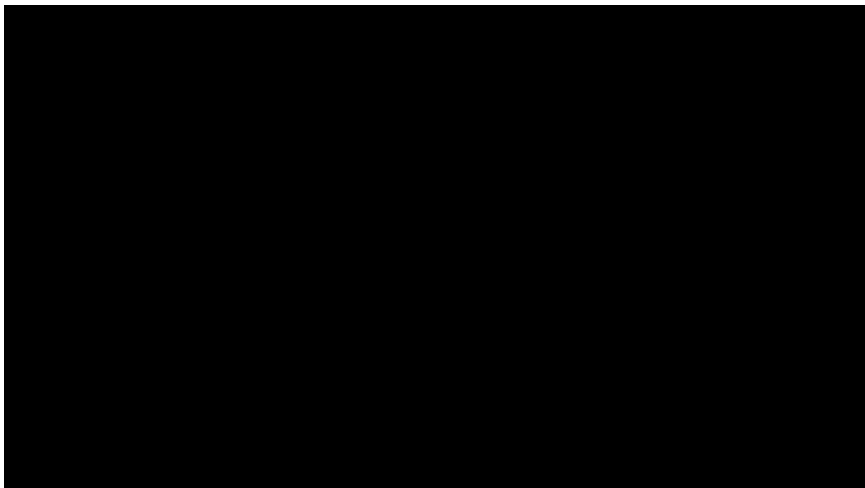
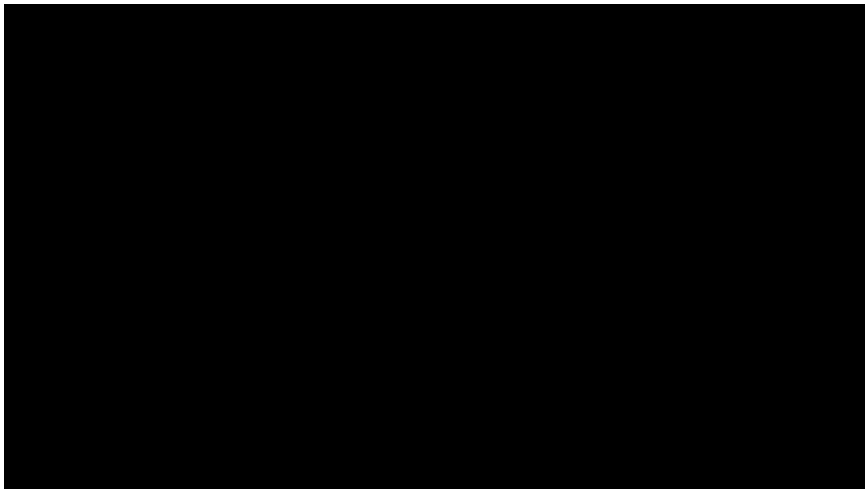


31. ECG curve development during heart ischemia





32. Endocrine water metabolism regulation disorders





33. Endothelial dysfunction syndrome

34. Fever (causes and consequences); hyperthermia

35. General causes and consequences of acute organ failure (heart, lungs, kidneys)

You have to find it within these playlists:

<https://www.youtube.com/playlist?list=PLcD7sq2YwW1OH02BLoWMUrbapZcdhWOVZ>

<https://www.youtube.com/playlist?list=PLcD7sq2YwW1P1p7cPZ5kmpjWf0O-AF7uS>

https://www.youtube.com/playlist?list=PLcD7sq2YwW1PXC3oucZDIMG9mMA4w8ZI_

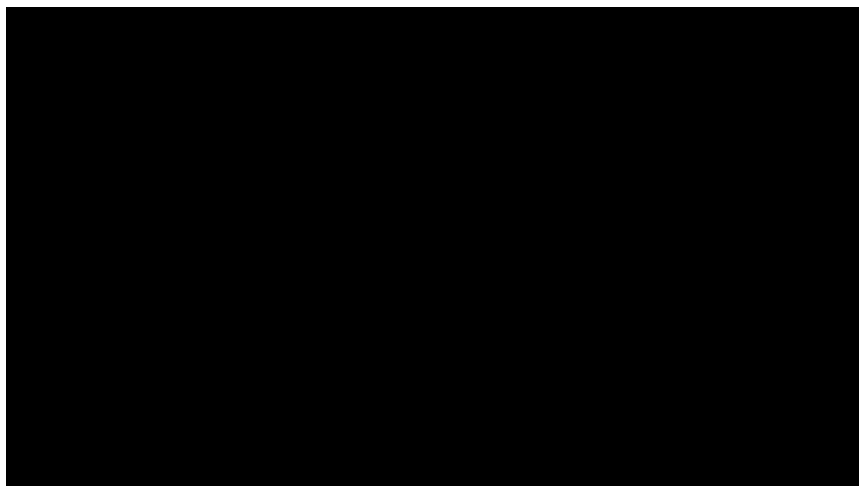
36. General signs of inflammation

37. Glycaemia, its regulation and disorders

https://www.wikilectures.eu/w/Cushing%27s_disease

38. Hypercalcemia, causes and consequences

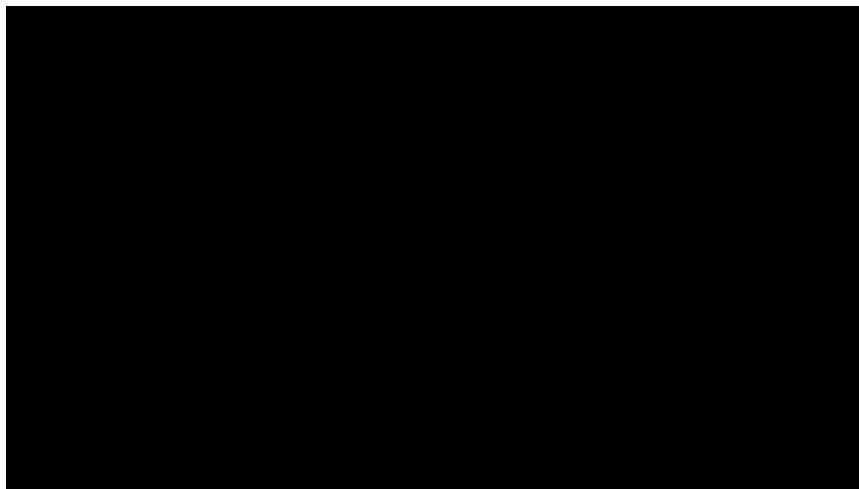
39. Hypercapnia; causes and consequences



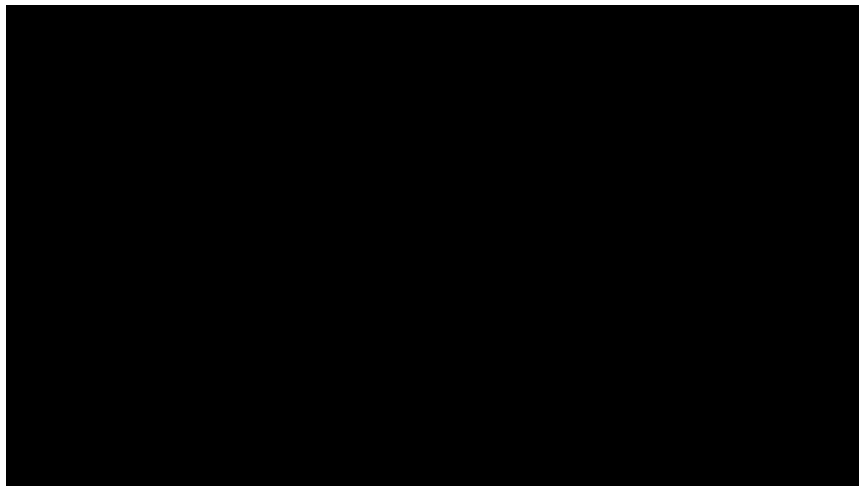


40. Hyperhydration (types, causes and consequences)

isotonic hyperhydration



hypotonic hyperhydration

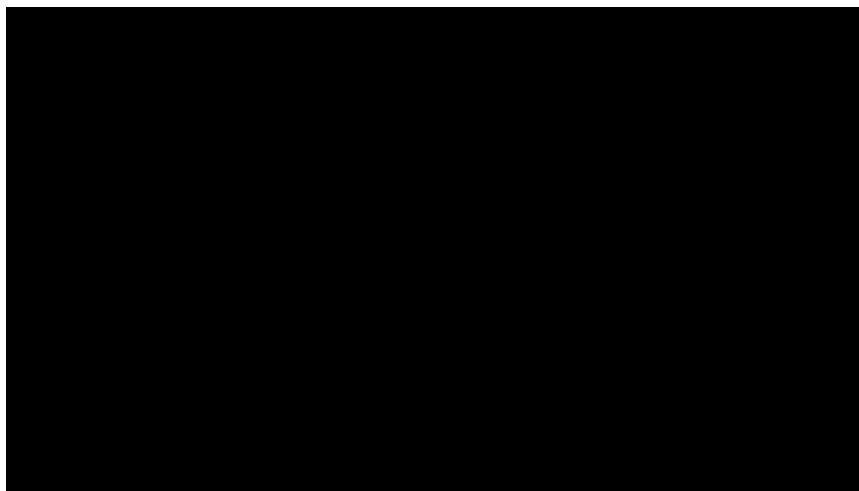


hypertonic hyperhydration

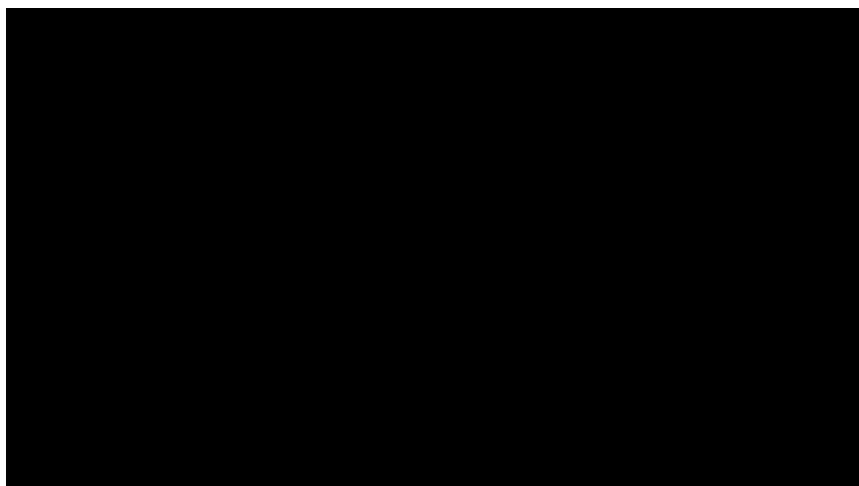


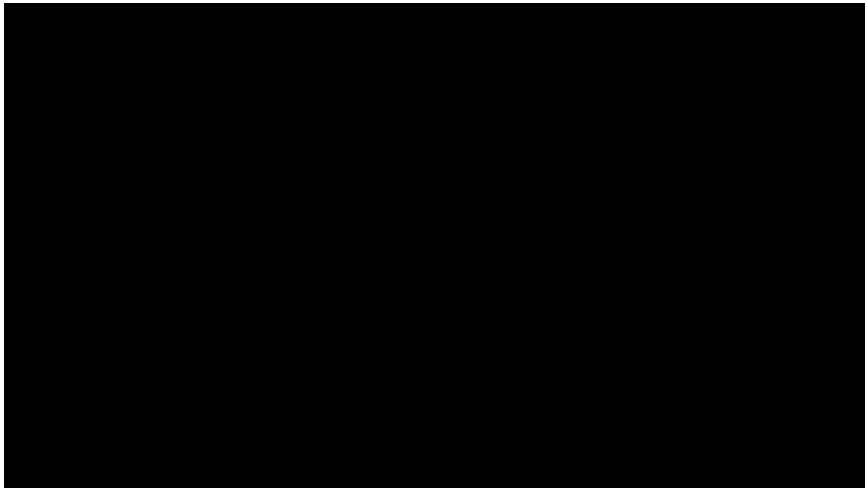
41. Hypocalcemia, causes and consequences

42. Hyponatremia, causes and consequences



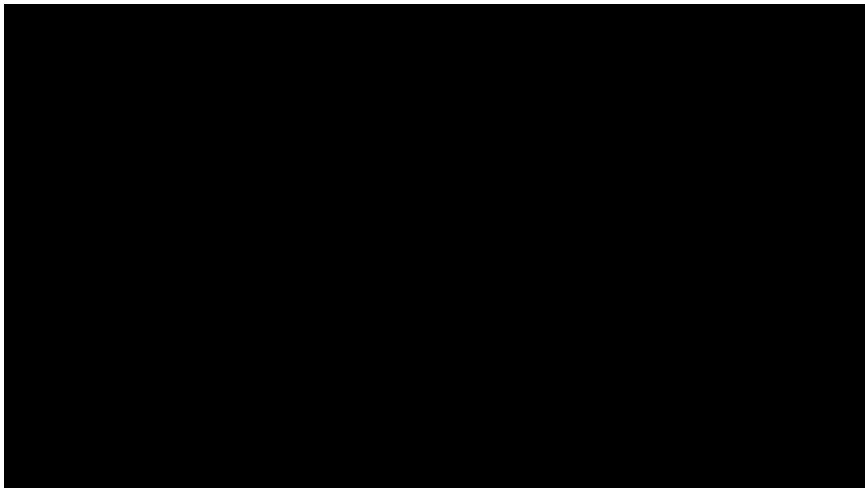
43. Hypovolemic shock (causes, phases)





44. Hypoxic hypoxia (causes and consequences)

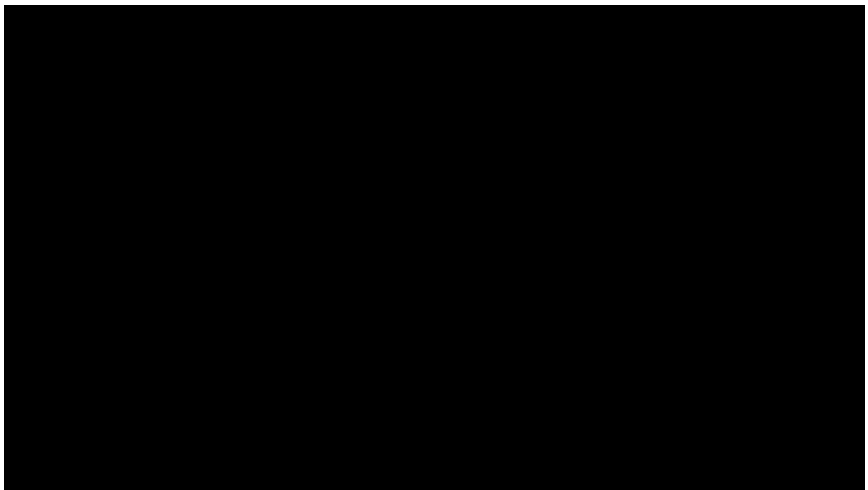
Hypoxia - table



Hypoxic hypoxia - V/Q mismatch



Cyanosis



45. Hypoxic hypoxia; compensation and adaptation; mountain sickness

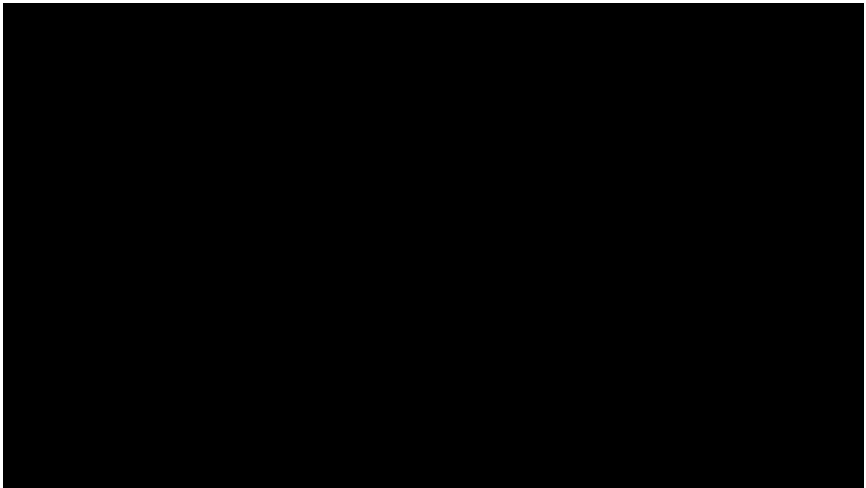
e.g. Hypoxia - table



Hypoxic hypoxia - V/Q mismatch



Cyanosis



46. Hypoxia, ischemia (comparison), ischemic and stagnant hypoxia

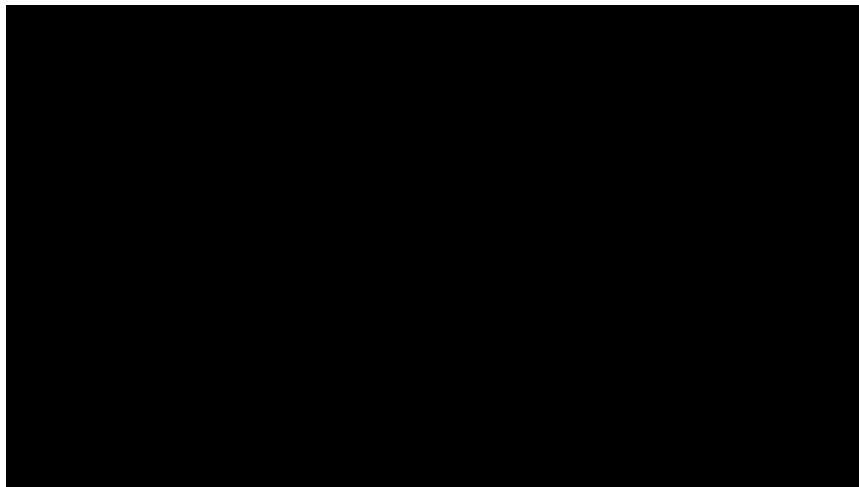


47. Hypoxias (causes and types)

Hypoxias - table



48. Changes in hydration and volemia (definition, causes and consequences, clinical importance)



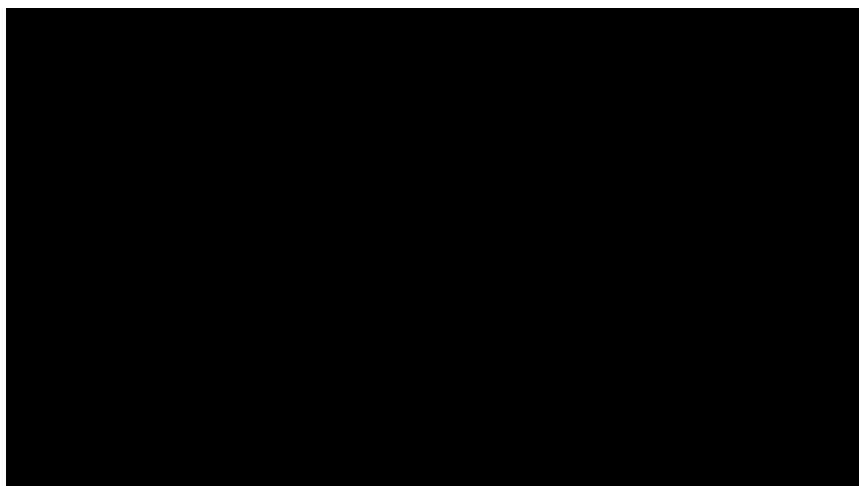
49. Importance of the fat tissue in health and disease

50. Increased central venous pressure, portal hypertension, chronic venous insufficiency

51. Local tissue reaction to injury (inflammation)

52. Types and causes of syncope

Syncope - types - tLOC

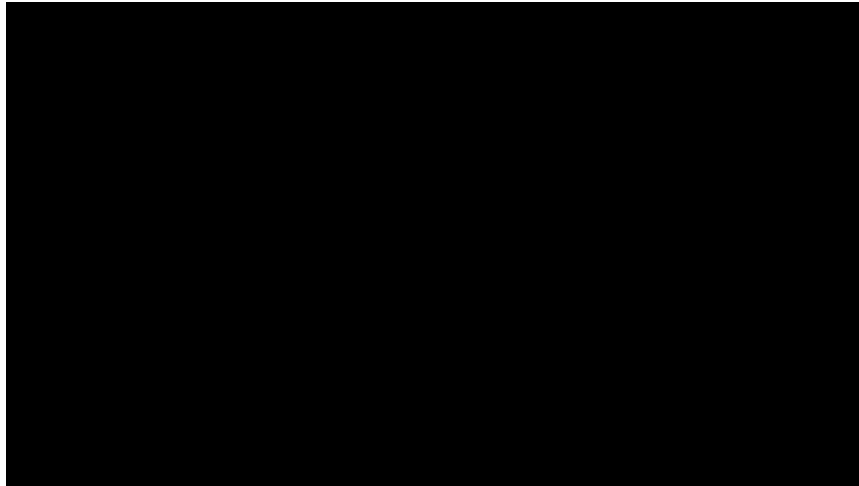


53. Lung gas exchange disorder (ventilation, diffusion, V/Q ratio)

e.g. https://www.wikilectures.eu/w/Obstructive_and_restrictive_lung_diseases

https://www.wikilectures.eu/w/Control_of_ventilation

54. Metabolic ABB disturbances

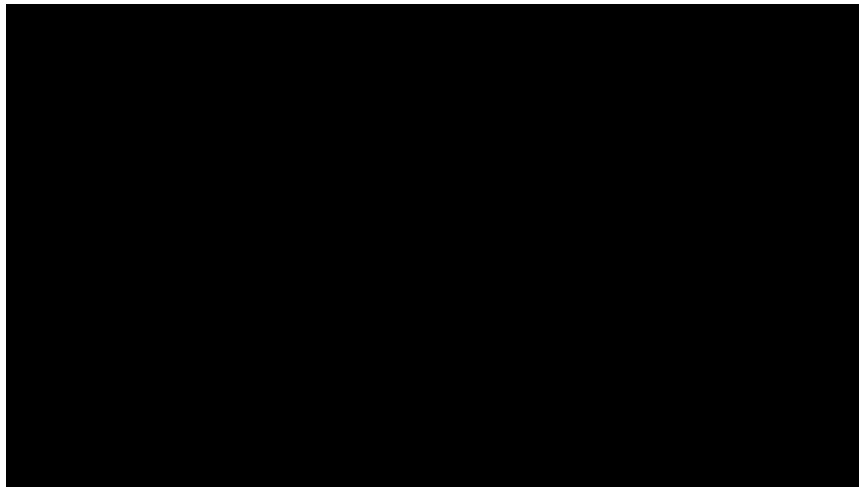


55. Principles of examination of the autonomic nervous system (baroreflex, Schellong's test, Valsalva's maneuver)

56. Metabolic syndrome

https://www.wikilectures.eu/w/Metabolic_syndrome

57. Mineral metabolism changes due endocrine disturbances (K, Na)



58. Obesity (measurement, causes, consequences, complications)

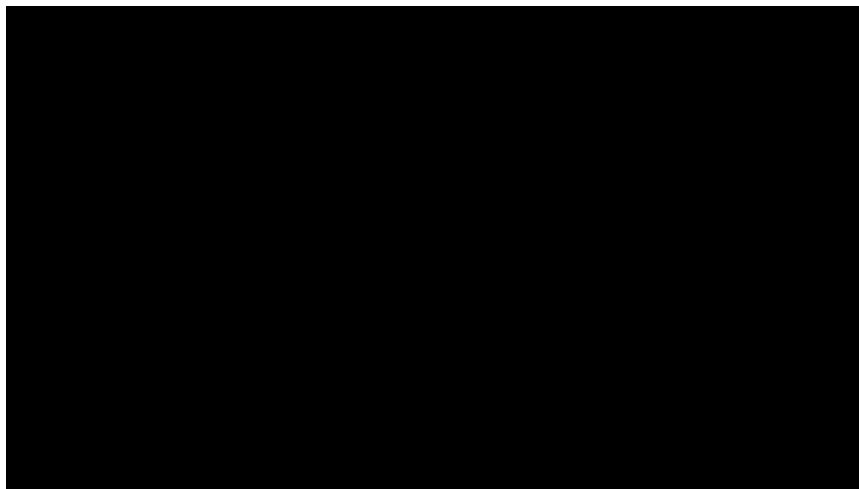
59. Pathophysiology of calcemia, free and bound calcium

60. Perfusion control and its regulation (causes and consequences of the regulation failure)



61. Phases of hypovolemic shock

Phases of shock



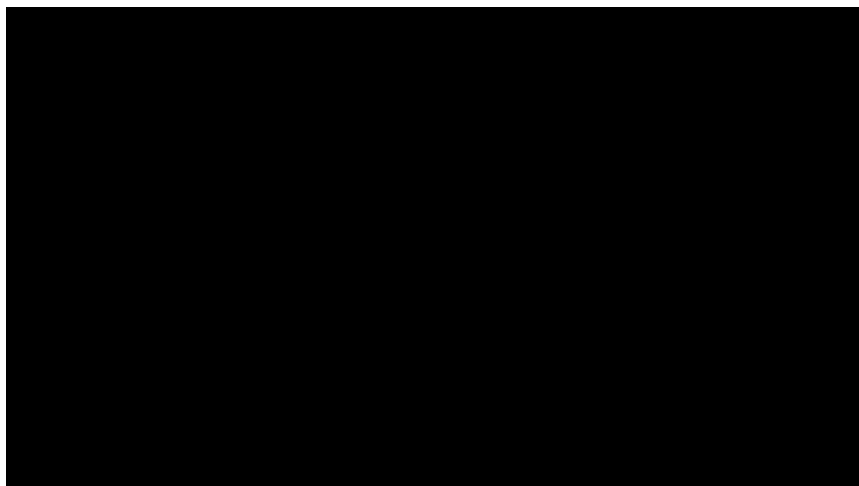
62. Pulmonary hypertension (causes and consequences)

https://www.wikilectures.eu/w/Pulmonary_hypertension

63. Qualitative and quantitative alimentation disorders (examples)

64. Quantitative and qualitative disturbances of consciousness (overview)

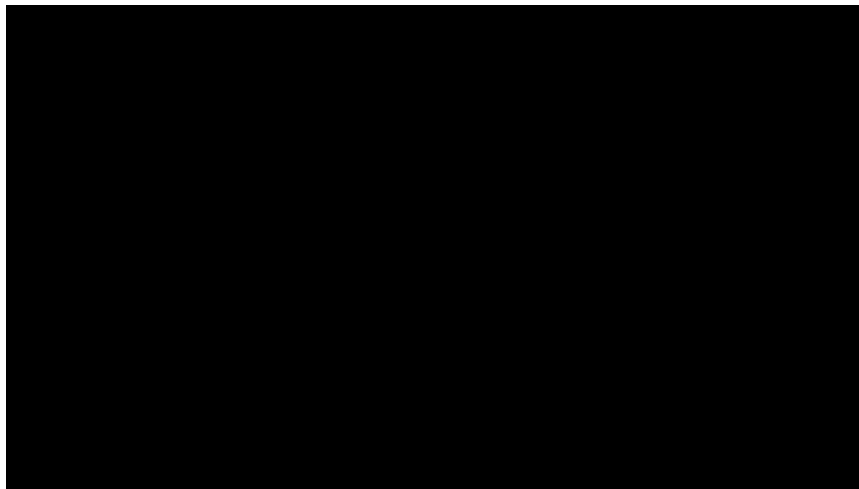
Consciousness - quantity



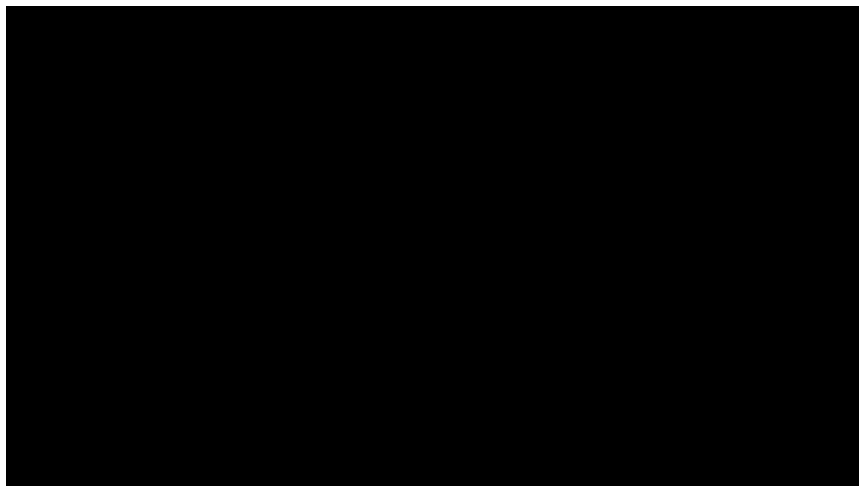
Consciousness - quality



65. Relation between ABB and ion concentrations, impact of ion level changes on ABB; examples



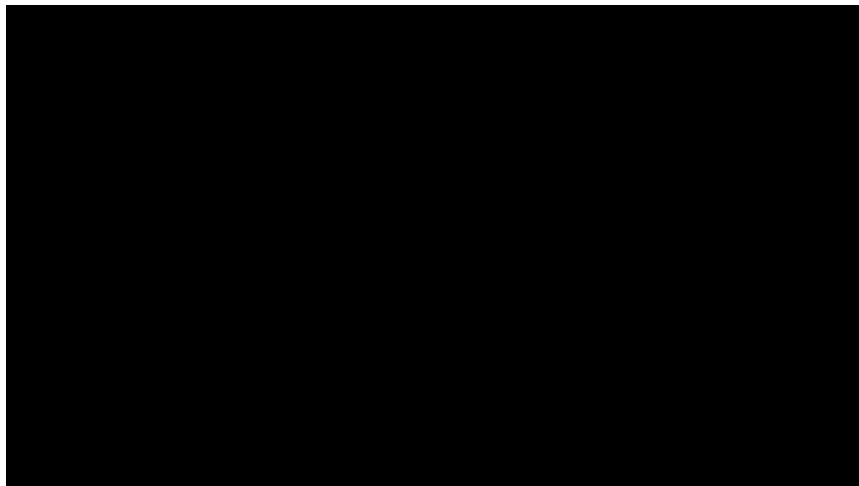
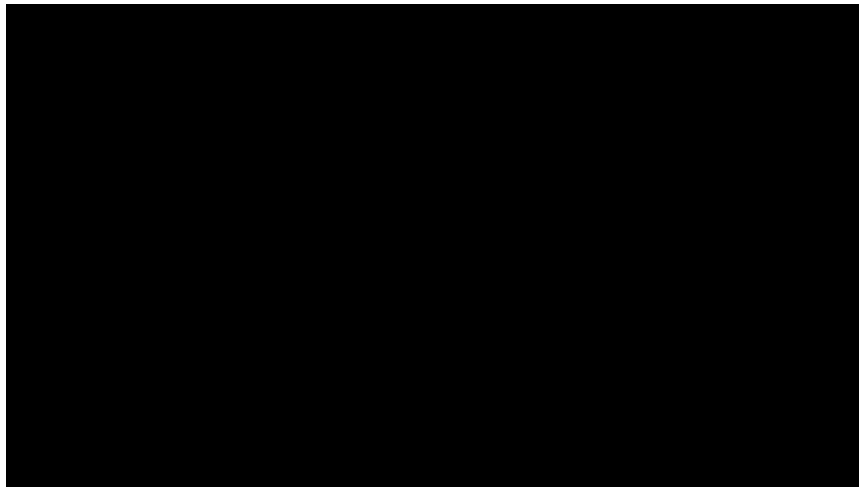
66. Respiratory ABB disturbances



COPD



67. Secondary hypertension, type, causes (endocrine etc.)



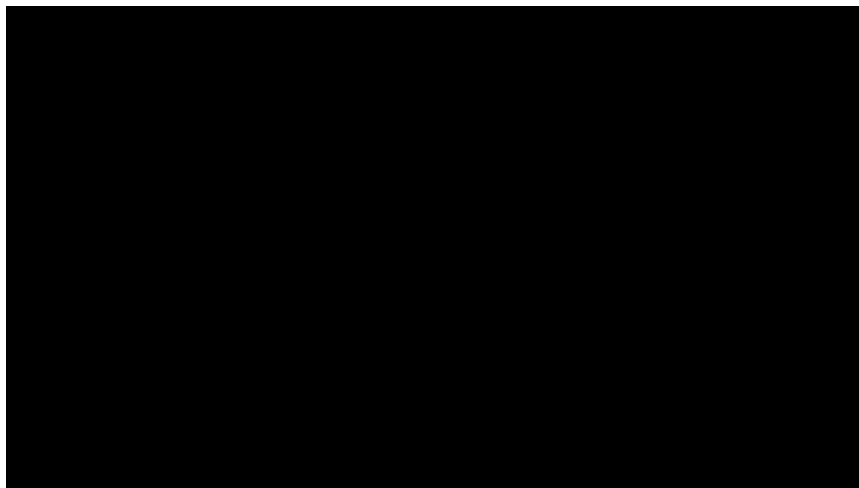
68. Complications of shock states

e.g. decompensatory phase of shock

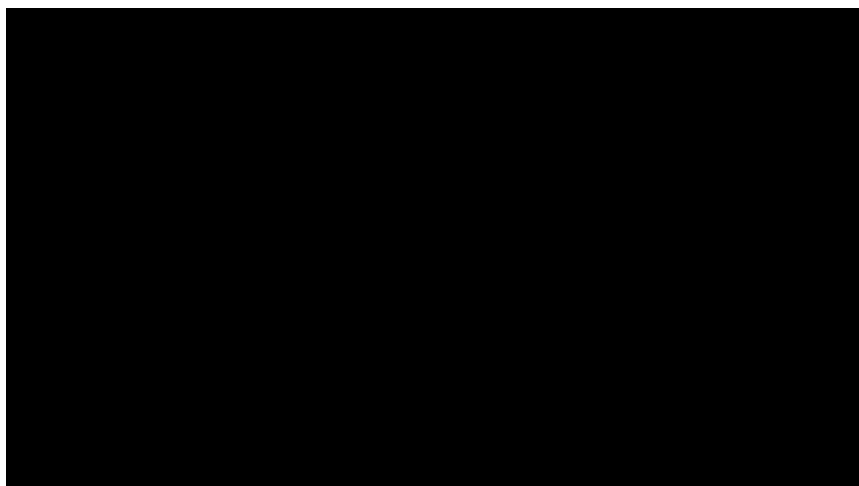


69. Sleep apnea syndrome (central and peripheral type; consequences)

Comment: Obstructive Sleep Apnea (OSA) vs. Central Sleep Apnea (CSA) The point is, that in OSA during apnoic pause (no air flow from and out of the nose), you should see chest movement (there is obstruction in retroglottal space). In case of CSA, the problem is with the CNS respiratory centers and there is no obstruction, thus in case of apnoic pause (again no air flow), you will not see chest movement.



70. Types of edema according cause

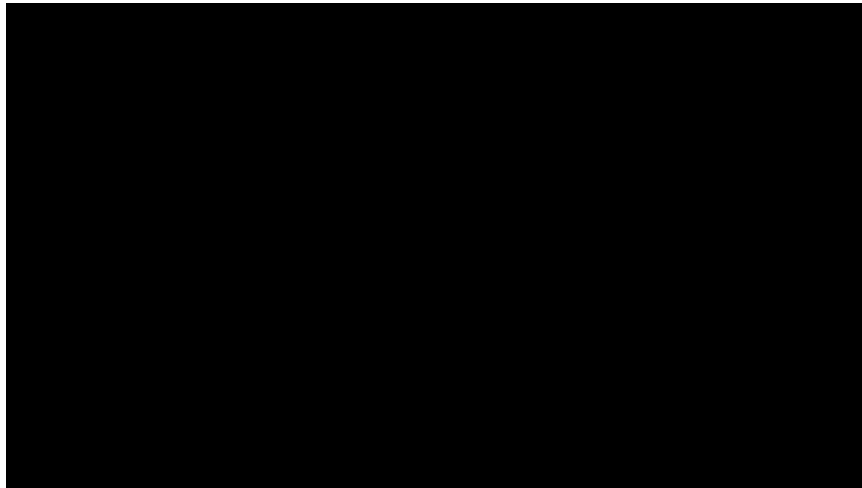


71. Types of starvation, causes and consequences; refeeding syndrome

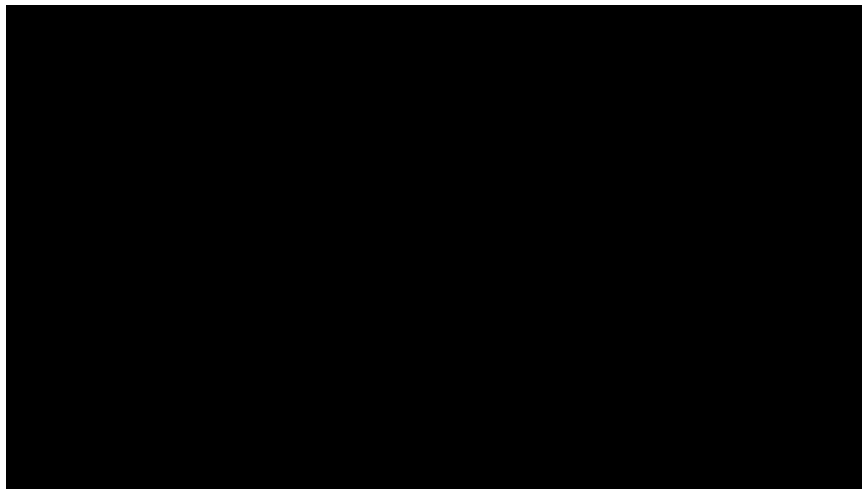
72. Manifestations of autonomic innervation disorders in organ systems (cardiovascular, gastrointestinal, urogenital), Horner's syndrome

73. Vegetative state, locked-in syndrome, brain death

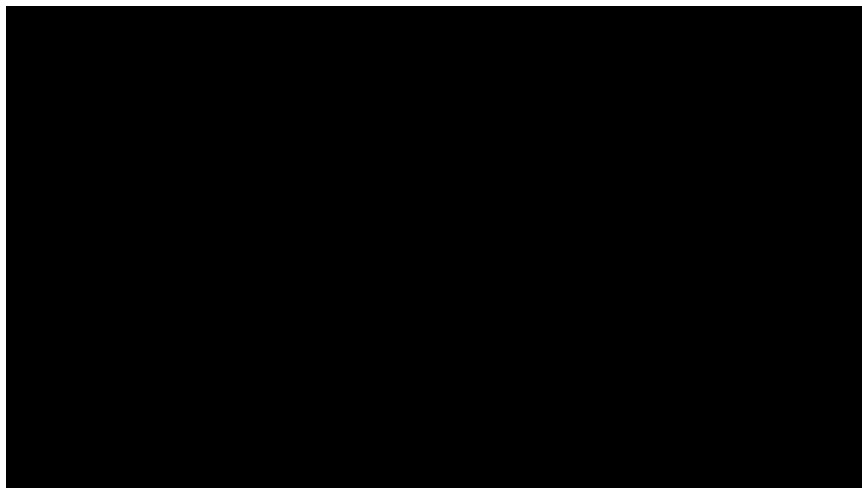
Vegetative state = locked out



Locked-in syndrome



Brain death



74. Ventilation control disorders

https://www.wikilectures.eu/w/Control_of_ventilation