Increasing vascular resistance also increases workload of right ventricle (RV)

- Normally LV wall is thick because systemic circulation has high resistance; RV usually thin walled because normally pumping against low resistance
- So increasing RV work which is not built for
  - Eventually leads to right ventricular heart failure
  - Long lasting vasoconstriction leads to heart failure
  - Acutely; hypoxic vasoconstriction in a patient isn’t good because it increases likelihood of oedema forming;
    - If they already have any hypoxia & you give them GA, you risk hypoxia getting worse & sending them into RV heart failure.

- Happens if patient not well ventilated by artificial ventilator
  - Ventilator may be set too low for patient; lungs not being ventilated adequately with air
- Go up to high altitude
  - No choice but to breathe atmospheric air at low partial pressure

Reflex effects of hypoxia:

- Reflex mechanisms which help counteract effects of hypoxia
- Baroreceptors found in carotid sinus & in aortic arch
  - These regions also regions where peripheral chemoreceptors found
  - These are sensitive to levels of $O_2$ in blood

- Image: shows structure called carotid body; found in bifurcation of common carotid artery
  - Has afferent nerve fibres which join to sinus nerve & receives afferent information from baroreceptors & runs into CN IX again (glossopharyngeal)
  - 2 carotid bodies on either side of neck
  - Amongst aortic baroreceptors you find aortic bodies which are chemoreceptor tissue & nerve fibres from aortic bodies join into aortic nerve then into CN X on both sides of aortic arch then up to medulla.