

Therapeutic Gymnasium

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Continuous Passive movement Machine

- Continuous Passive Movement (CPM): refers to passive motion that is performed by a mechanical device that moves a joint slowly and continuously through a controlled range of motion.



Biomechanics of Thorax

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Overview

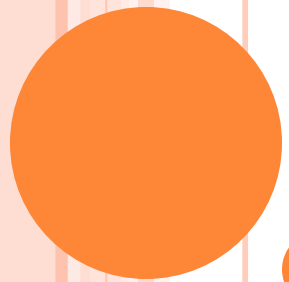
- In the thoracic region, protection and function of the thoracic viscera take precedence over segmental spinal mobility

Exercise Testing

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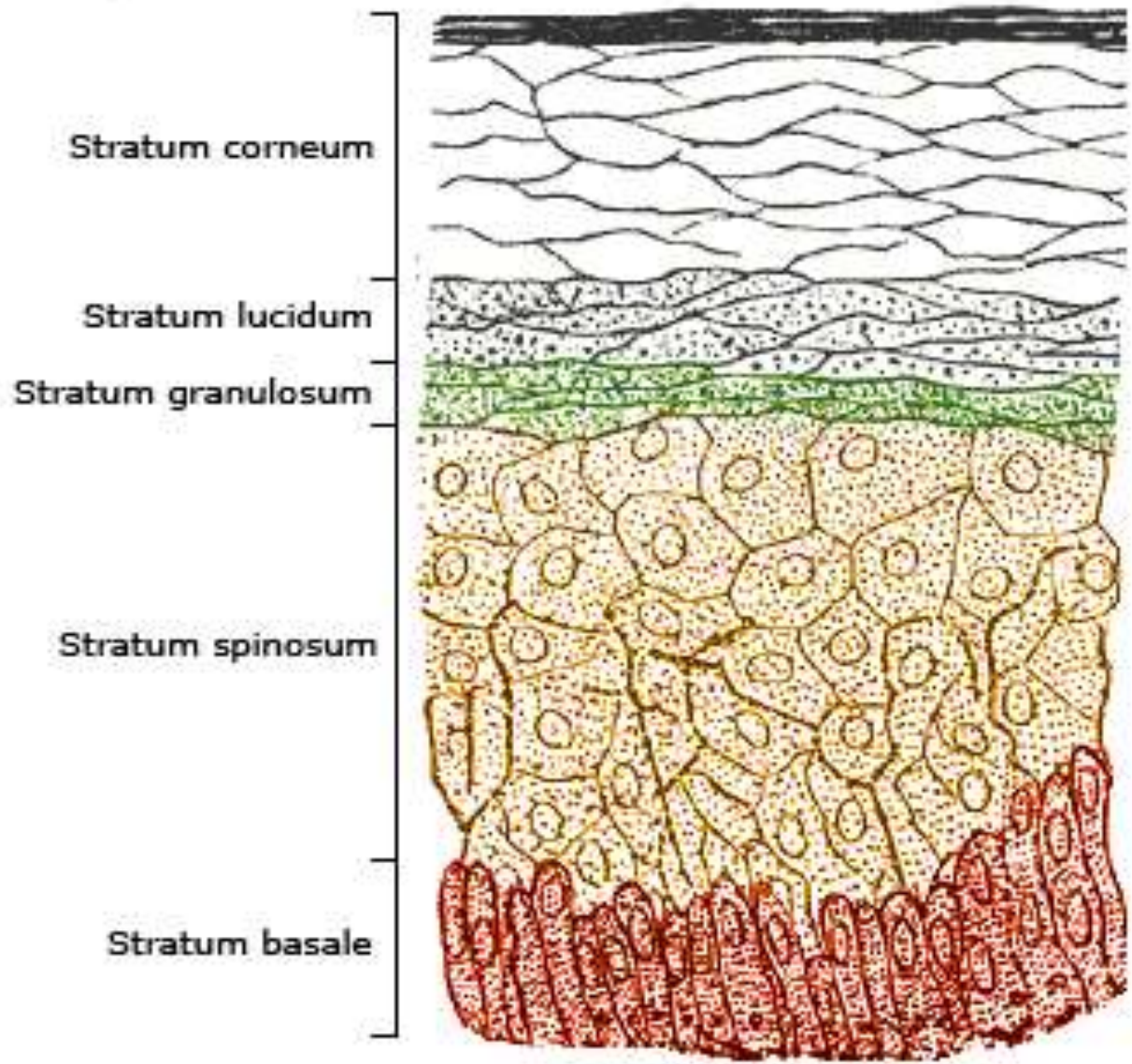
Uses of ETT

- Assess the maximum aerobic capacity of normal subjects in preparation for exercise prescription or atheletic training.
- Assess musculoskeletal and neuromuscular fitness prior to returning to sports/ work.
- Assess maximal aerobic capacity of patients with cardiac disease
- Detect coronary artery disease.

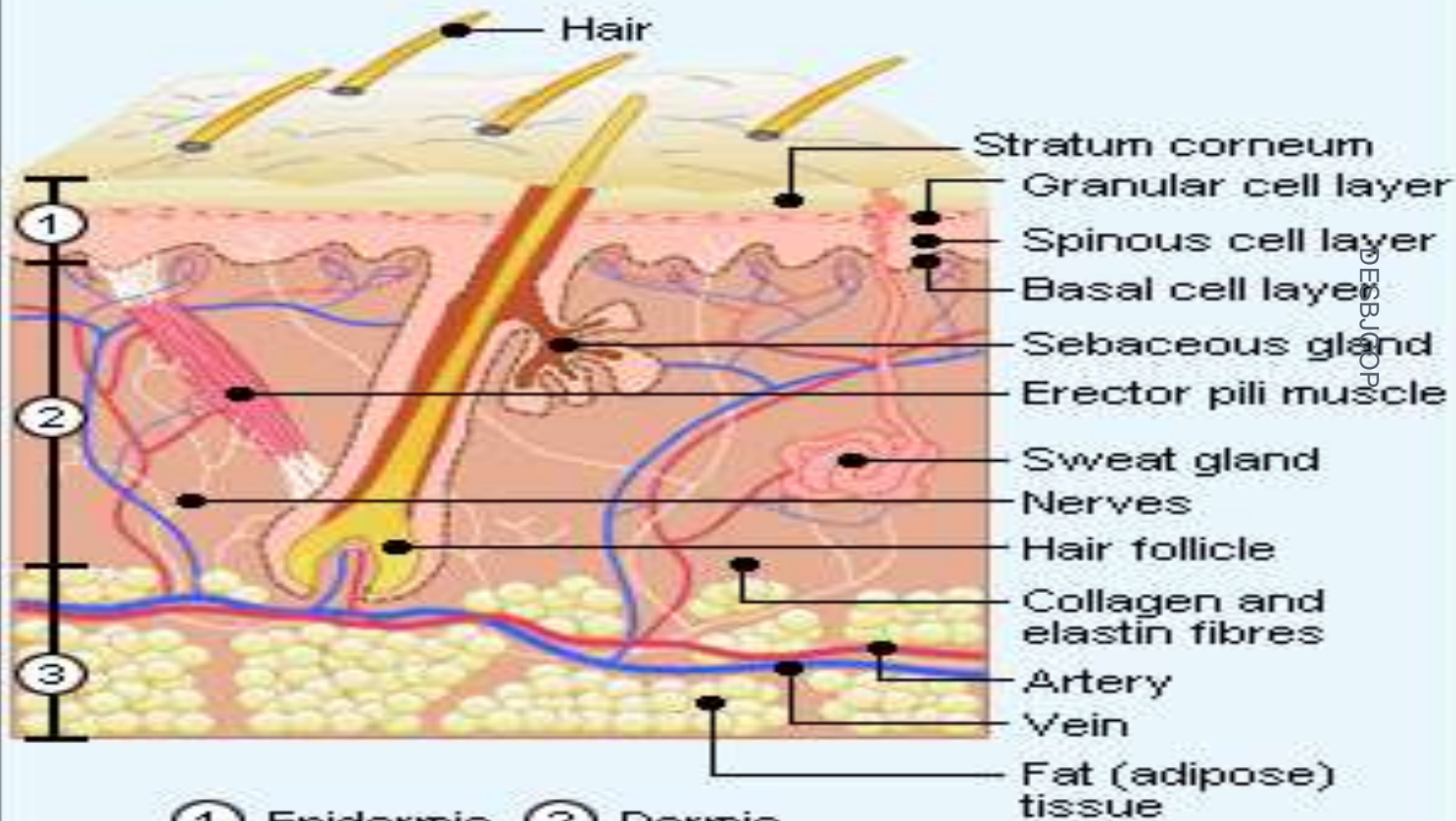


BURNS

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HUMAN SKIN



Cardiac Rehabilitation

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What is Cardiac Rehabilitation?

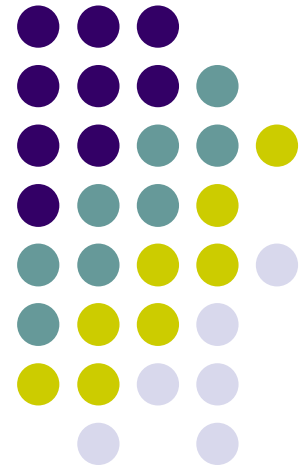
comprehensive exercise, education, and behavior modification program designed to improve the physical and emotional condition of patients with heart disease.

Prescribed to control symptoms, improve exercise tolerance, and improve overall quality of life.

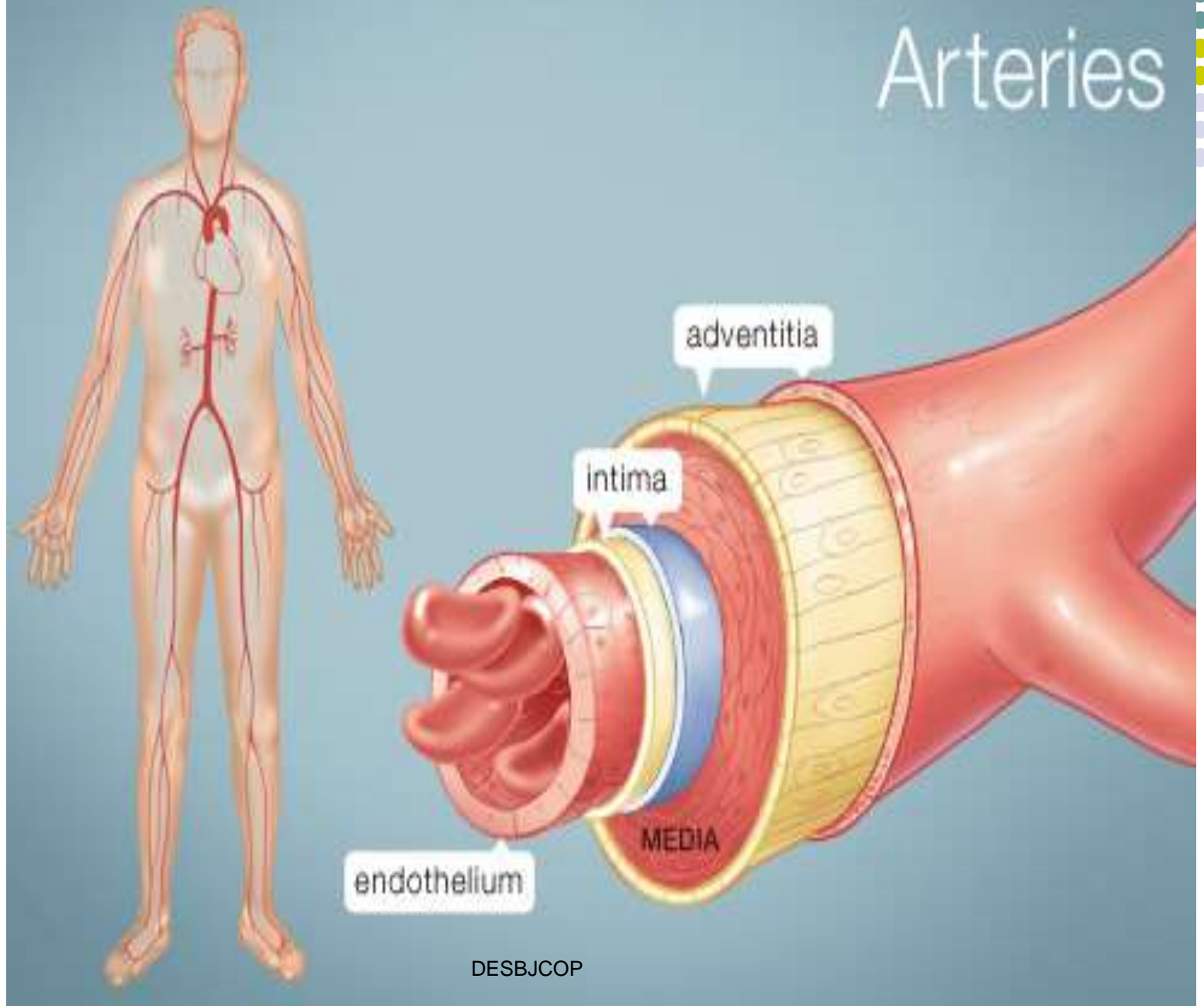
The primary goal of cardiac rehabilitation is to enable the participant to achieve his/her optimal physical, psychological, social and vocational functioning through exercise training and lifestyle change.

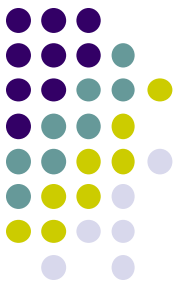
Peripheral vascular disease

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Arteries



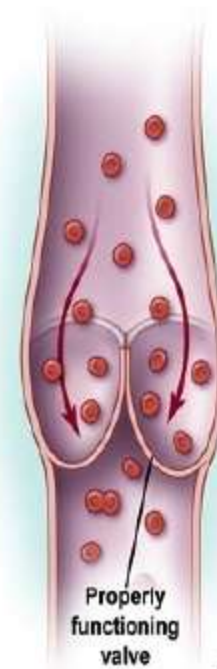


Veins

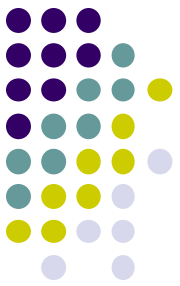
- ❖ are thin-walled vessels that transport deoxygenated blood from the capillaries back to the right side of the heart

3 Layers – intima, media, adventitia

- there is little smooth muscle & connective tissue → makes the **veins more distensible** → they accumulate large volumes of blood
- Major veins, particularly in the lower extremities, have **one-way valves** ---allow blood flow against gravity
- Valves allow blood to be pumped back to the heart but prevent it from draining back into the periphery



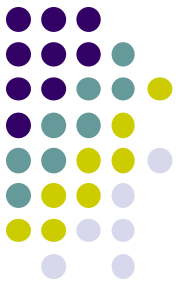
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Venous Disorders

- ❖ alteration in the transport/flow of blood from the capillary back to the heart
- ❖ changes in smooth muscle and connective tissue make the veins less distensible with limited recoil capacity
- ❖ valves may malfunction, causing backflow of blood

- ❖ Virchow's triad: blood stasis, vessel wall injury, and altered blood coagulation



Deep Vein Thrombosis (DVT) of the Leg

