# Digital model of aortic function

## I. Schematically redraw modeled records and describe the changes

### *Changes in stroke volume*

| | SV=50ml | SV=90m |
|---|---|---|
| SBP | | |
| DBP | | |
| ΔBP | | |
| pBP | | |


### Change in peripheral resistance

| | R = 0,5–0,8 mmHg·s/ml | R = 1,2–1,5 mmHg·s/ml |
|---|---|---|
| SBP | | |
| DBP | | |
| ΔBP | | |
| pBP | | |


### *Change in compliance*

| | C = 0,5 ml/mmHg | C = 2,0 ml/mmHg |
|---|---|---|
| SBP | | |
| DBP | | |
| ΔBP | | |
| pBP | | |


### *Cardiac arrest*

| | SV=0ml |
|---|---|
| SBP | |
| DBP | |
| ΔBP | |
| pBP | |

**II. Interest tasks***:*

Model and describe the changes in blood pressure during the stay in the sauna followed by a cool down (the heat reduces peripheral resistance, the cold increases peripheral resistance).


Model and describe the changes in blood pressure during physical activity (gradual increase of systolic output and heart rate, and then reduction of peripheral resistance).


Model and describe essential hypertension (increased SV and TF by + 20%) and fully developed hypertension (return of TF and SV to the original values and increased resistance by 40%).


**Conclusion** _____

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