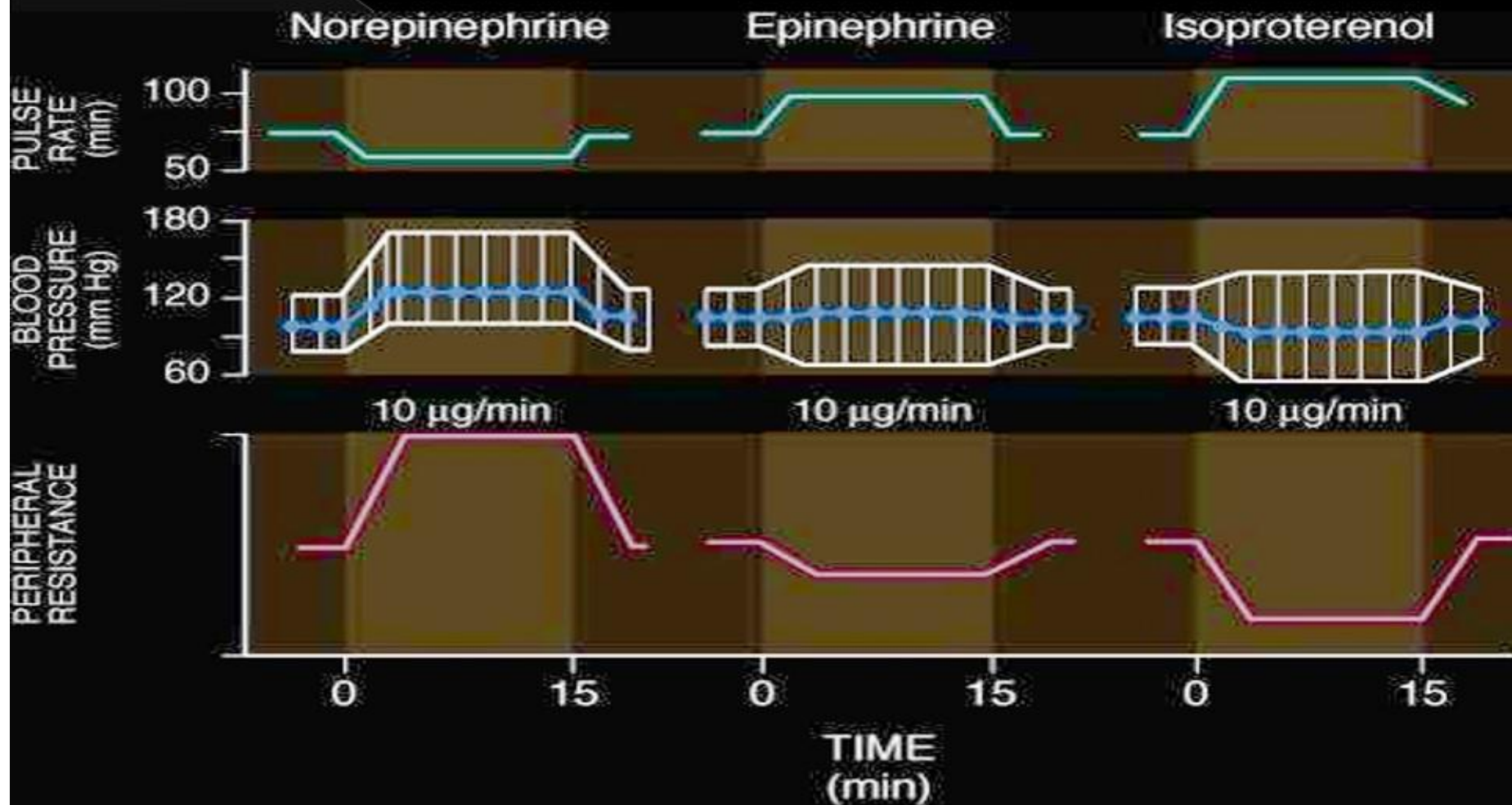


## Adrenoceptors

<u>Sub-type</u>	<u>Location of receptors</u>	<u>Type of G-protein coupled to receptor</u>	<u>Basic pathway</u>
$\alpha_1$	Smooth Muscle	Gq	Increase in PLC Increase in IP3 Increase in intracellular $Ca^{2+}$ => m. contraction
$\alpha_2$	Presynaptic nerves	Gi	Decrease in activation of Adenylate cyclase Decrease in cAMP
$\beta_1$	Heart	Gs	Increase in activation of Adenylate cyclase, Increase in cAMP Increase in intracellular signaling pathways
$\beta_2$	Smooth muscle		
$\beta_3$	Fat tissue		

# Effects of IV infusion of NE, Epi, or Isoproterenol in human beings



## Comparison of the Effects of Intravenous Infusion of Epinephrine and Norepinephrine in Human Beings\*

EFFECT	EPINEPH- RINE	NOREPINEPH- RINE
<b>Cardiac</b>		
Heart rate	+	- †
Stroke volume	++	++
Cardiac output	+++	0,-
Arrhythmias	++++	++++
Coronary blood flow	++	++
<b>Blood pressure</b>		
Systolic arterial	+++	+++
Mean arterial	+	++
Diastolic arterial	+,0,-	++
Mean pulmonary	++	++
<b>Peripheral circulation</b>		
Total peripheral resistance	-	++
Cerebral blood flow	+	0,-
Muscle blood flow	+++	0,-
Cutaneous blood flow	--	--
Renal blood flow	-	-
Splanchnic blood flow	+++	0,+
<b>Metabolic effects</b>		
Oxygen consumption	++	0,+
Blood glucose	+++	0,+
Blood lactic acid	+++	0,+
Eosinopenic response	+	0
<b>Central nervous system</b>		
Respiration	+	+
Subjective sensations	+	+