Immune System Changes During Pregnancy

- Shreyas Gujaran

Generally, immune system is activated in some terms, and deactivated in some terms.

NOTE: this is essential for the mother to not reject the foetus as a foreign body

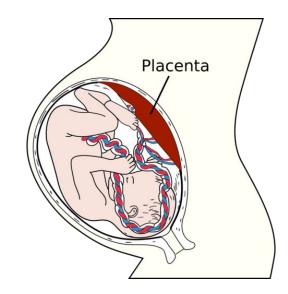
What all happens?

- Monocytes become more active
- Number of neutrophils available increases
- Number of NK cells increases
- Number of T-cells decreases



NOTE: pregnant females are at a higher risk towards infections due to this compromised immune system during the time of pregnancy

What else?



T-cells and NK cells accumulate in uterus

→ These act on placenta to aid the passage of nutrients to, and waste from the foetus

NOTE: STAT5 signalling to CD4 T-cells increases to a level far beyond a normal non-pregnant female

Pre-eclampsia

Preeclampsia is defined as the presence of:

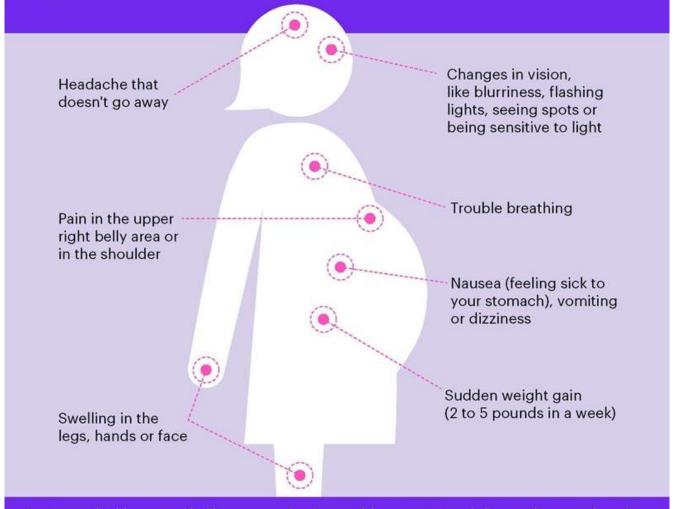
1. systolic blood pressure (SBP) greater than or equal to 140 mm Hg or a diastolic blood pressure (DBP) greater than or equal to 90 mm Hg or higher, on two occasions at least 4 hours apart in a previously normotensive patient,

OR

2. SBP greater than or equal to 160 mm Hg or a DBP greater than or equal to 110 mm Hg or higher (In this case, hypertension can be confirmed within minutes to facilitate timely antihypertensive therapy.



SIGNS AND SYMPTOMS OF PREECLAMPSIA INCLUDE:



Contact your health care provider If you are experiencing any of these symptoms or believe you have preeclampsia.

Visit https://www.marchofdimes.org/preeclampsia for more information.

May 2020

Thank You!