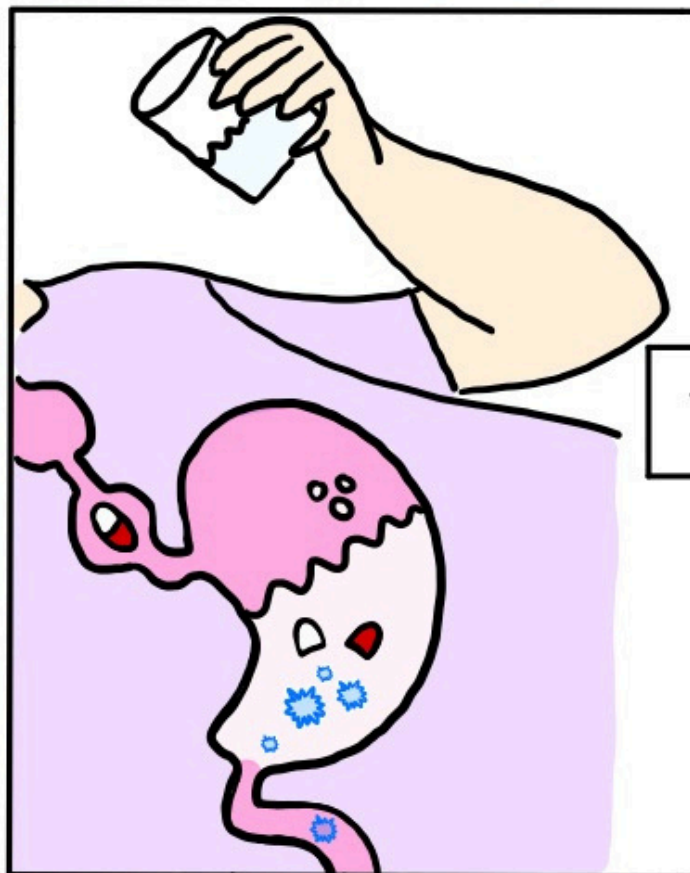
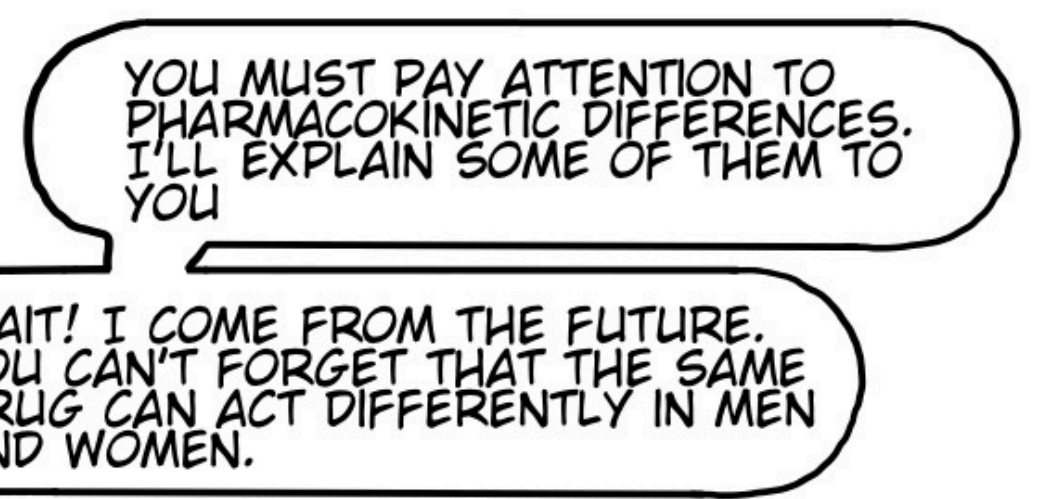
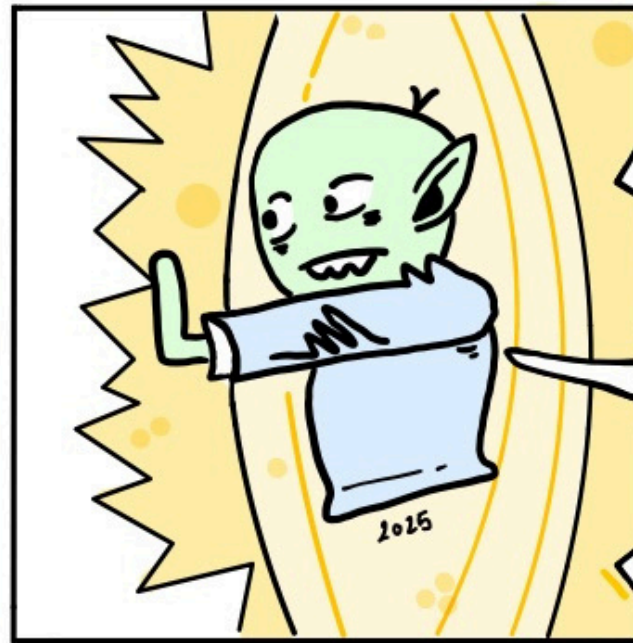
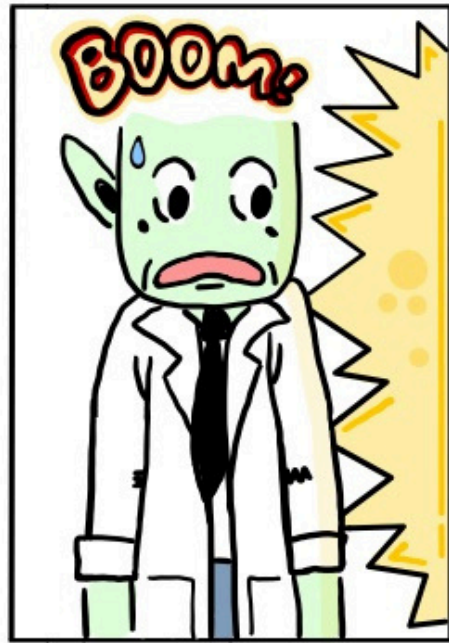


BLOWING UP PHARMANCOLOGY



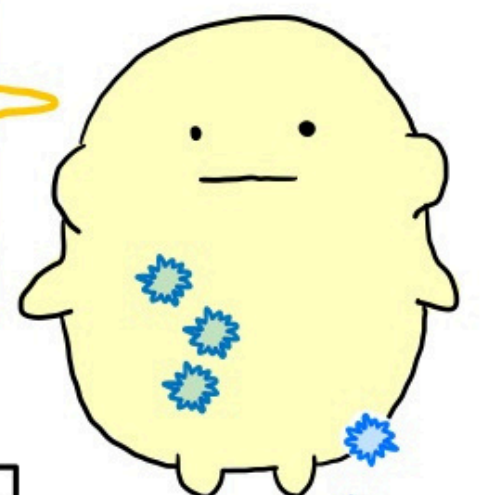
WE MUST CONSIDER THAT WOMEN USUALLY HAVE A **SLOWER GASTRIC EMPTYING**, WHICH AFFECTS THE RELEASE SPEED, AND A **HIGHER ACIDITY LEVEL**, WHICH CAN MODIFY THE DRUG'S SOLUBILITY

1. LIBERATION

THESE DIFFERENCES MAY CAUSE SOME DRUGS TO LAST LONGER IN WOMEN'S BODIES OR HAVE MORE INTENSE OR PROLONGED EFFECTS

THIS CAUSES LIPOPHILIC DRUGS TO BE STORED MORE IN FAT

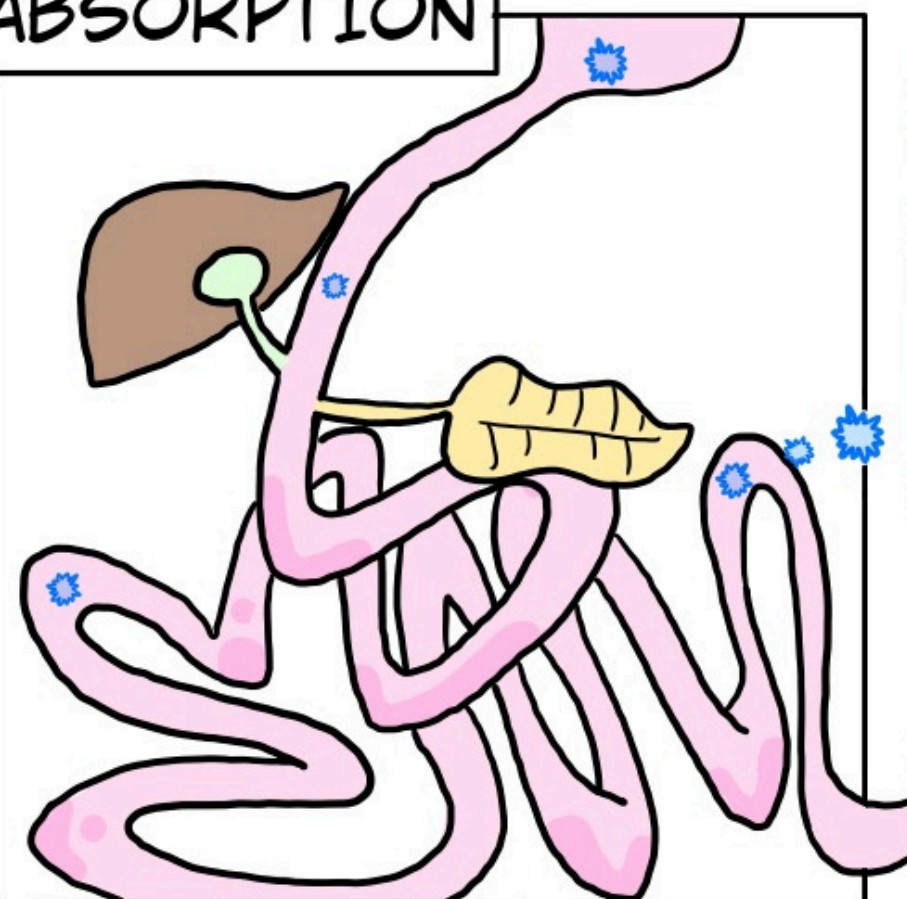
WOMEN HAVE A HIGHER PERCENTAGE OF **ADIPOSE** TISSUE COMPARED TO MEN.



2. ABSORPTION

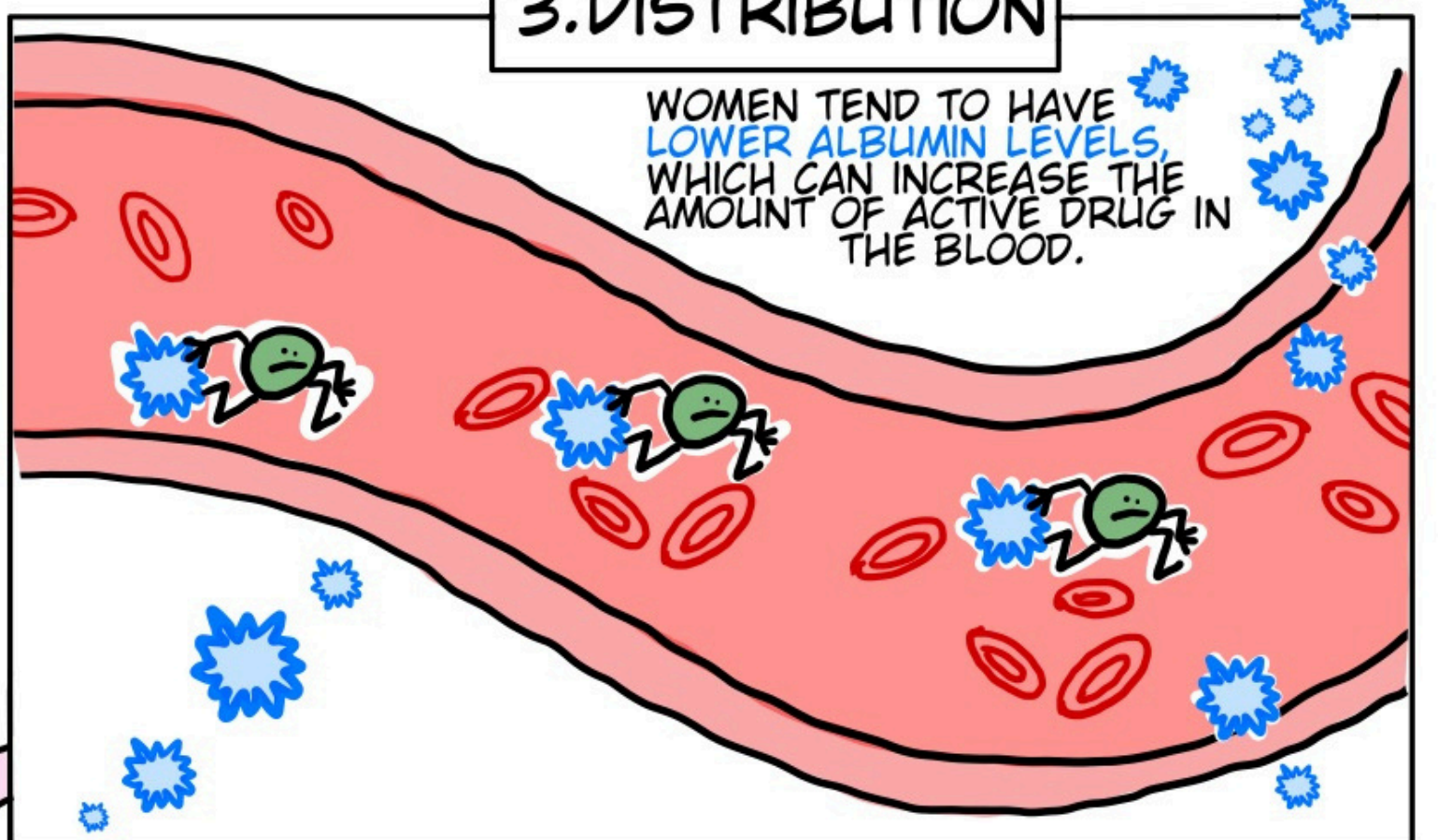
IT MAY VARY DEPENDING ON THE PHASE OF THE **MENSTRUAL CYCLE**.

SOME DRUGS THAT ARE RAPIDLY METABOLIZED IN MEN MIGHT ACCUMULATE IN WOMEN AND CAUSE TOXIC EFFECTS IF DOSES ARE NOT PROPERLY ADJUSTED.



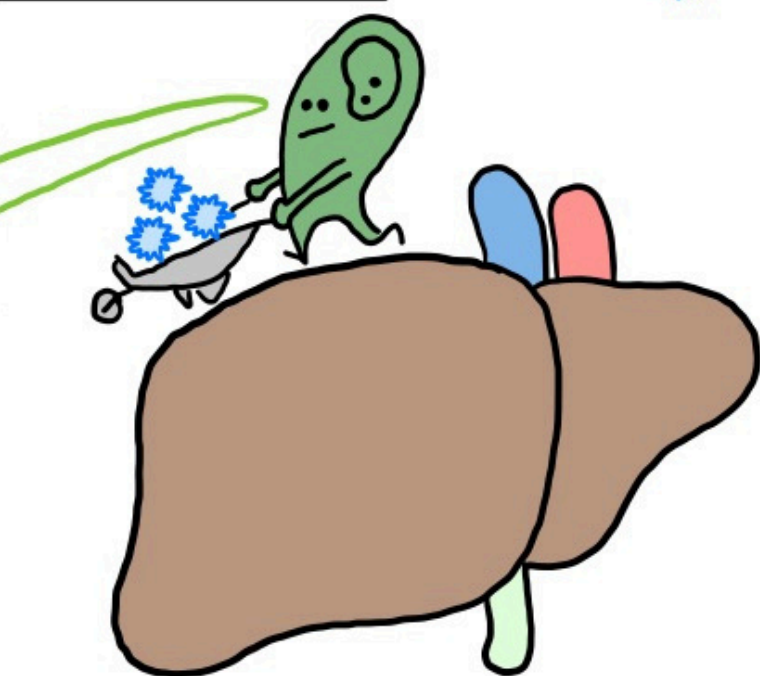
3. DISTRIBUTION

WOMEN TEND TO HAVE **LOWER ALBUMIN LEVELS**, WHICH CAN INCREASE THE AMOUNT OF ACTIVE DRUG IN THE BLOOD.



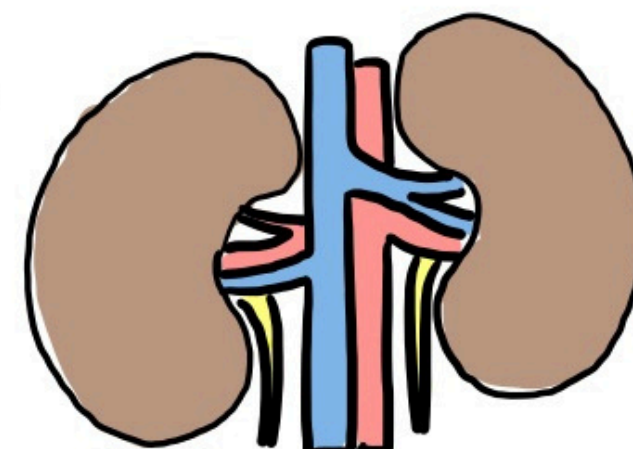
4. METABOLISM

WOMEN HAVE HIGHER ACTIVITY IN CERTAIN **CYP450** ENZYMES, SUCH AS CYP3A4 AND CYP2D6, WHICH CAN LEAD TO **FASTER** METABOLISM OF SOME DRUGS.



WOMEN GENERALLY HAVE A SLIGHTLY **LOWER GLOMERULAR FILTRATION RATE (GFR)** THAN MEN DUE TO LOWER MUSCLE MASS AND THEREFORE LESS CREATININE IN THE BLOOD.

5. EXCRETION



URINARY **PH** MAY BE SLIGHTLY MORE ACID, WHICH ALSO AFFECTS THE ELIMINATION OF SOME DRUGS



AS YOU HAVE SEEN, **PHARMACOKINETIC DIFFERENCES** BETWEEN MEN AND WOMEN AFFECT THE LADME PROCESSES, WHICH CAN IMPACT THEIR EFFICACY AND SAFETY. THIS IS WHY A CLINICAL TRIAL THAT REFLECTS THE **ACTUAL POPULATION** IS OF VITAL IMPORTANCE. THESE VARIATIONS REQUIRE **DOSE ADJUSTMENTS** AND ATTENTION TO POTENTIAL ADVERSE EFFECTS SINCE SOME DRUGS MAY REMAIN EFFECTIVE FOR LONGER IN WOMEN AND EVEN CAUSE TOXIC EFFECTS THAT DO NOT OCCUR IN MEN. A PERSONALIZED TREATMENT APPROACH OPTIMIZES CLINICAL OUTCOMES AND MINIMIZES RISKS.

