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## Abortion and miscarriages

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Pregnancy is a process that mammals use to replicate and sustain its population. Maintenance of pregnancy is crucial to production of viable offspring. During pregnancy, the woman is often advised to diet on fruits. Fruits have been shown to be one of the best sources of dietary fiber with lots of vitamins especially C, E and A, as well as minerals. Abortion is when a woman decides to terminate her pregnancy due to health issues or emotional resistance. However, many women miscarry their pregnancy resulting in emotional and physical pain. Mulling over this pain, we decided, through research, to investigate the safety of some fruits women consume during pregnancy. The fruits investigated ex vivo using isolated albino rats uteri and later in vivo were: Pineapple (*Ananas comosus*), Pawpaw (*Carica papaya*), Water melon (*Citrulus vulgaris*), and African star apple (*Chrysophyllum albidum*). Carrot (*Daucus carota*) and Negro pepper (*Xylopi aethiopica*) were also investigated.

**Result:** Pineapple juice cause uterine contraction ex vivo. The possible mechanism through which the juice achieved this contractile effect could be synergistic effect of bromelain (an enzyme present in the juice) and other components of the juice binding to oxytocic receptors in the uterus which might have inhibited potassium ion channels and promoted calcium efflux from the sarcoplasmic reticulum and calcium entry through L-type Ca<sup>2+</sup> channels. But the in vivo experimentation showed abortion in first trimester only. However, pawpaw and water melon did not contract the uterus. Moreover, the analysis of *Chrysophyllum albidum* which most African

mother's crave, showed that the epicarp, and mesocarp are not strongly uterotonic but *Chrysophyllum* seed endosperm showed strong oxytocin like contractions just like pineapple juice.

**Discussion:** Though pawpaw and water melon, are not uterotonic, yet there are folkloric claim that after a heavy meal of pawpaw women miscarry their pregnancy. Moreover, continuous heavy meal of water melon led to hormonal insufficiency culminating in miscarriage or still birth if pregnancy was carried to term.

**Conclusion:** Pregnant women should endeavor to consume any fruit they crave for in moderation, mostly after a meal, to reduce the uterotonic or uterorelaxation effect of the fruits consumed in order to avoid miscarriages.

**Key words:** Fruits, Moderation, Uterotonic

## Biography

Oluchi Nnenna Nwankudu is a Senior Lecturer at the College of Veterinary Medicine, Michael Okpara University of Agriculture, Umudike, Nigeria, with 19 years of teaching experience. Since 2005, she has been dedicated to educating students in veterinary physiology, focusing on areas such as homeostasis, neurophysiology, endocrinology, and sports physiology. Appointed as Senior Lecturer in 2021, Nwankudu combines her extensive academic expertise with research to advance veterinary science. She is passionate about animal health and committed to shaping the next generation of veterinary professionals