

# Impact of Progesterone Surge On Oral Health and Hygiene During Menstrual Cycle and Pregnancy

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## Purpose

The purpose of this study is to understand the effect of progesterone surge on oral health and hygiene during menstruation and pregnancy.

## Methods

A keyword-based primary literature search in PubMed and Google Scholar database was conducted to understand the effect of progesterone surge during pregnancy and menstruation cycle that affects oral health and hygiene. Retrospective clinical data analysis included published original research and review articles with keywords progesterone surge, premenstrual syndrome, menstrual cycle, pregnancy, oral health, oral hygiene, and physiological variables.

## Results

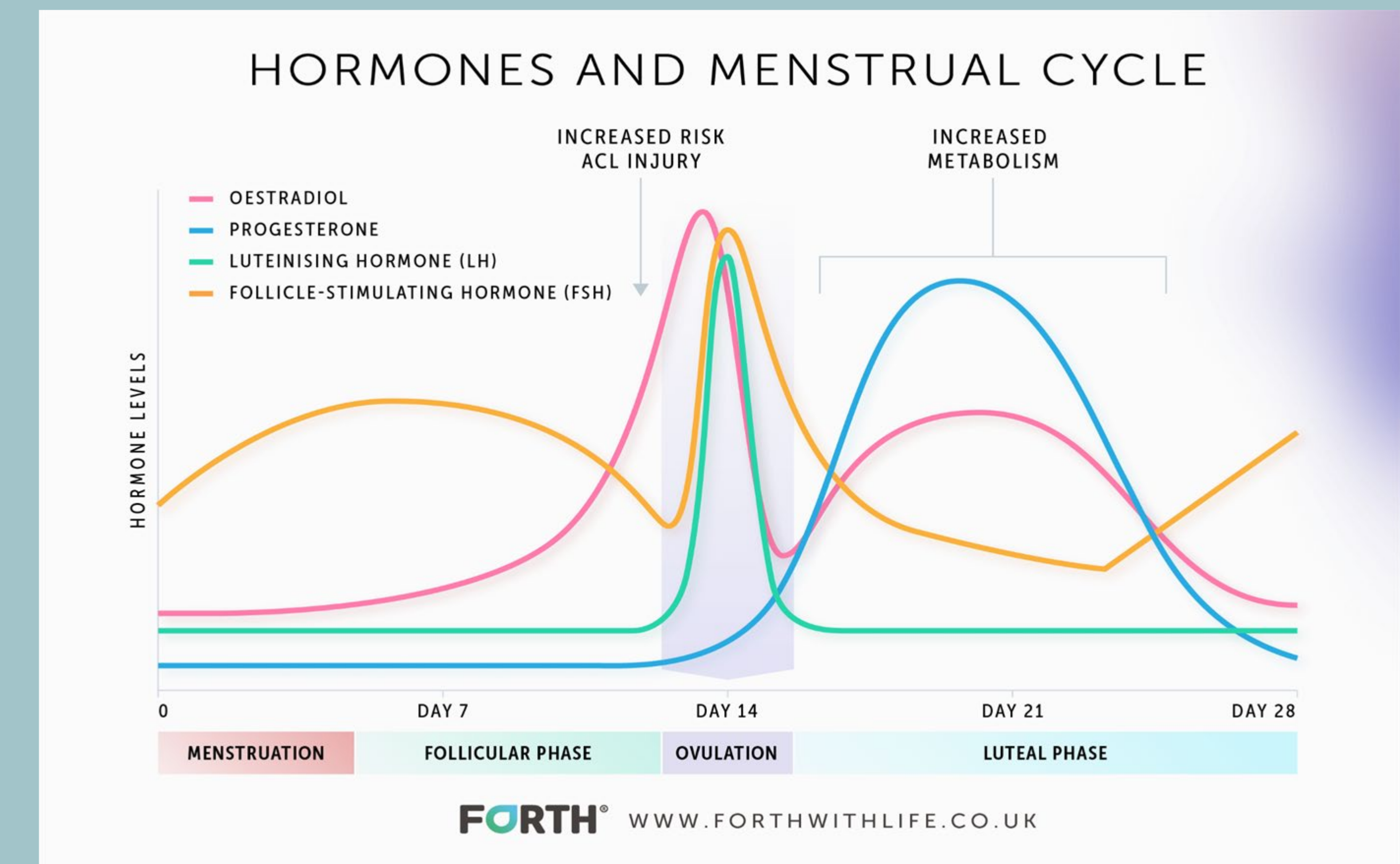
- A correlation was observed between progesterone surge during menstruation and pregnancy, and oral health.
- Progesterone surges during pregnancy have also been correlated with oral cancerous lesions observed in about 5% of pregnancies.
- Hormonal changes during menstruation and pregnancy impact the blood supply to the oral mucosal area and plaque buildup leading to oral mucosal inflammation.

## Results Contd.

- Higher levels of progesterone can increase susceptibility to bacterial plaque buildup causing gingivitis most noticeable during the second to eighth month of pregnancy.
- Clinical diagnosis during gestation was correlated with the total bacterial count. A higher prevalence of *Tannerella forsythia* and was identified in the first trimester of pregnancy that was correlated with the diagnosis of gingivitis in these women. *Porphyromonas gingivalis* showed a positive correlation with progesterone levels in the first trimester.
- Certain oral contraceptives that contain progesterone may also cause gum inflammation due to increased plaque buildup and heightened immune response to the toxins produced by plaque-associated commensals turned into pathogens.

## Discussion

Progesterone surge impacting oral health is a topic that currently lacks detail molecular information specifically regarding its control mechanisms. Further research on the impact of progesterone surge during pregnancy and menstruation related to oral health can help serve the discovery of imperative knowledge. To illustrate, progesterone surge has led to the formation of oral cancerous lesions and can even lead to oral plaque and oral mucosal inflammation. It would be interesting to find whether control of such progesterone surge would prevent oral cancerous development.



## Conclusion

- Progesterone surge during menstruation and pregnancy in women leads to oral mucosal inflammation and plaque buildup thus impacting oral health and hygiene.
- Certain measures such as increased intake of vitamin B and C, stress reduction can directly affect progesterone production, therefore improving oral health-related problems in these conditions.

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## References

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