

# Do Fibroids Change in Size During Pregnancy?

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## Abstract

Uterine fibroids are a common finding in pregnant women. Data on how fibroids change during pregnancy are limited.

## Objectives

To characterize the effect of pregnancy on the size of uterine fibroids.

## Study Design

- A retrospective cohort study of pregnant women with fibroids over a 6 year period.
- Gestational age, number of fibroids, their location, and volume (individual and collective) were reviewed
- Fibroids without serial measurements over at least two trimesters were excluded
- The primary outcome was change in fibroid size across trimesters.
- Secondary outcomes were the associations of initial fibroid size and the number of fibroids on change in fibroid size.

## Results

- 229 fibroids in 145 pregnant women were included in the analysis
- The median fibroid volume grew by 26.6% between the 1st and 2nd trimesters but decreased by 24.4% between the 2nd and 3rd trimesters, and overall decreased by 15.4% between the first and last ultrasound measurements.
- Fibroids with an initial volume below the median were more likely to grow than those that measured above the median (57% vs 28%;  $p < 0.001$ ).
- Of the 28 fibroids identified in the lower uterine segment during the first trimester, only 6 (23%) remained in the lower uterine segment during the third trimester.

Table 1: Fibroid Sizes Across Trimesters

	First Trimester	Third Trimester
Individual fibroid size, range	5.23–5670 cm <sup>3</sup>	2.89-13,248 cm <sup>3</sup>
Individual fibroid volume, median	90.1 cm <sup>3</sup>	69.3 cm <sup>3</sup>
Individual fibroid volume, range	36.3 – 198 cm <sup>3</sup>	32.4–179.7cm <sup>3</sup>

## Conclusion

- Small fibroids identified in the first trimester are more likely to grow throughout pregnancy compared to larger fibroids.
- The majority of large fibroids do not grow during pregnancy.
- First trimester lower uterine segment fibroids are likely to change position by the end of pregnancy.