

As an alternative calculation, I tested defining all the other groups as controls. For periodontal disease, that would be 5,540 (111 + 173 + 1,147 + 4,109). For tooth resorption, that would be 5,999 (570 + 173 + 1,147 + 4,109).

For Periodontal Disease:

- 66% sensitivity for 570 cases (376 true positive, 194 false positive)
- 70% specificity for **5540 controls** (1162 false negative, 3878 true negative)

	Predicted Medium / High Risk	Predicted Low Risk
True Periodontal Disease	376	194
No Periodontal Disease Record	1162	3878

From that, I would calculate the positive predictive value to be $376 / (376 + 1162) = 24.4\%$.

For Tooth Resorption:

- 63% sensitivity for 111 cases (70 true positive, 41 false positive)
- 78% specificity for **5999 controls** (1320 false negative, 4679 true negative)

	Predicted Medium / High Risk	Predicted Low Risk
True Tooth Resorption	70	41
No Tooth Resorption Record	1320	4679

From that, I would calculate the positive predictive value to be $70 / (70 + 1320) = 5.0\%$.

Again, I don't think these will be the exact true numbers. For example, as mentioned, I received an e-mail from basepaws on 10/15/2021 explaining that the cats used for the **training model excluded comorbidities**.