

# Long-term survival of teeth undergoing endodontic surgery in the Swedish adult population. A longitudinal registry study.

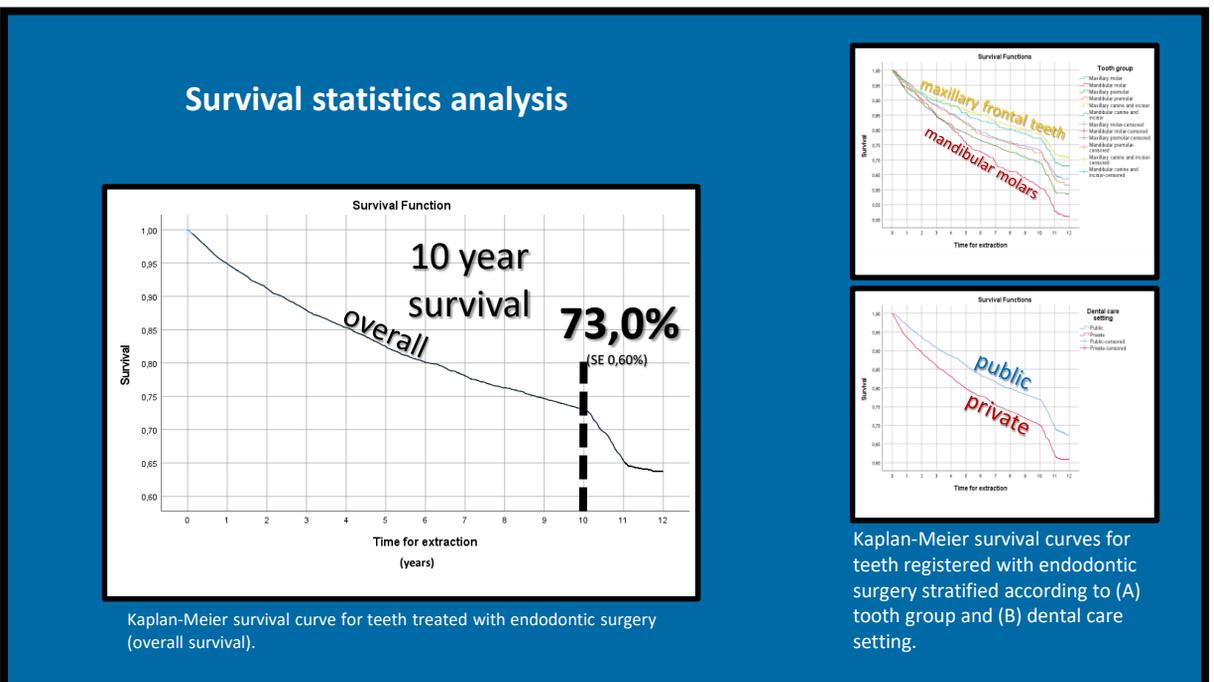
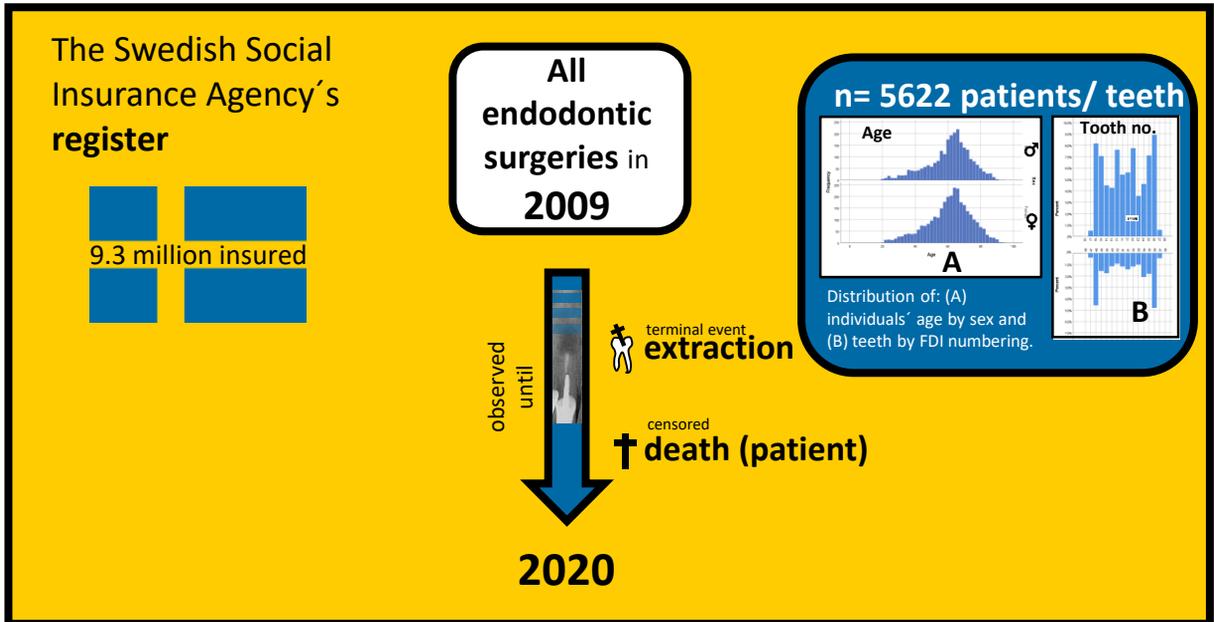
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**Aim:** To evaluate the long-term survival of teeth treated with endodontic surgery.



## Methodology and results:



**Conclusions:** The 10 year tooth survival after apical surgery was 73,0%. The proportion of extractions was not constant over time.

# Long-term survival of teeth undergoing endodontic surgery in the Swedish adult population. A longitudinal registry study

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**Aim:** The aim of this study was to evaluate the long-term survival of teeth within 11–12 years of a registration of performed endodontic surgery.

**Methodology:** The Swedish Social Insurance Agency (SSIA) register was searched for all individuals who were registered with endodontic surgery during the year 2009. The registry allows following a specific tooth in a specific individual over time. No clinical data on for instance presence of symptoms or quality of root filling or coronal restoration was available. The included teeth were followed until the terminal event of extraction was reported in the database, and if not, until the end of 2020. Deaths before terminal events were censored. In case an individual was registered with more than one treated tooth, the first registered tooth was included in the study; only one tooth per individual was included. Distribution of age, sex, dental service provider (private or public) and tooth group was assessed. Kaplan-Meier analyses were performed.

**Results:** After data cleaning 5 622 teeth/individuals were identified, of which 34% (n=1 915) were reported extracted during the 11–12 year follow-up. The calculated cumulated survival ten years after the registration of endodontic surgery was 73%. The incidence of tooth extraction was non-linear being somewhat steeper in the first year, and markedly steeper in the 11<sup>th</sup> year. Maxillary front teeth had the highest tooth survival and mandibular molar teeth the lowest. Teeth treated in the public sector had a higher survival than teeth treated in the private sector.

**Conclusions:** Tooth survival after endodontic surgery after 10 years was 73%. The proportion of extractions was not constant over time and the reason for the higher incidence of extractions during the 11<sup>th</sup> year remains unanswered.

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take home message

mandibular molars  
non-linear gradient  
apex private practice  
extraction  
Kaplan-Meier  
Cox regression



endodontic  
surgery  
+ 10 years

73% survival