



EndoTech
Singapore

TransformX™ Evidence Summary Sheet

Designed Around the Variables That Determine Endodontic Success

Executive Overview

Large-scale outcome research in non-surgical root canal treatment demonstrates that healing and long-term tooth survival are primarily influenced by a limited number of biological and technical variables (Ng, UCL Eastman PhD; meta-analysis + prospective cohort).

Paula Ng PhD.

Across both primary and secondary root canal treatment, five dominant prognostic domains consistently determine outcome:

- Pre-operative periapical status
- Apical extent of root filling
- Quality of obturation
- Quality of coronal restoration
- Intra-operative procedural control

TransformX™ is engineered to optimise the controllable technical variables that directly influence three of these five domains.

The Evidence Base

Meta-analytic pooled healing rates:

- Primary RCT (absence of apical periodontitis): ~75–83%

- Secondary RCT: ~77–80%
- 4-year tooth survival: ~95% (primary & secondary similar)

The most consistent predictors of healing:

- ✓ Presence and size of pre-operative lesion
- ✓ Apical extent of root filling (0–2 mm from apex optimal)
- ✓ Quality/density of root filling
- ✓ Quality of coronal restoration
- ✓ Procedural errors and apical extrusion

Clinical implication:

Technical precision at the apical third materially affects biological healing.

Where TransformX™ Fits

1■■■ Apical Control

Evidence shows that underfilling and overfilling reduce success rates.

Positioning Statement:

“Precision at the terminus defines success.”

2■■■ Shaping Quality → Obturation Quality

Positioning Statement:

“Shape defines seal.”

3■■■ Iatrogenic Risk Reduction

Positioning Statement:

“Engineered to reduce iatrogenic risk.”

4■■■ Structural Preservation & Restorative Prognosis

Positioning Statement:

“Preserve structure. Protect survival.”

Strategic Summary for TransformX™

Domain	Biological	Technical	Restorative
Pre-op lesion	✓		
Apical precision		✓	
Obturation quality		✓	
Coronal seal			✓
Procedural control		✓	