

## YOSHITSUGU TERAUCHI



### CV

Dr. Terauchi is a part-time lecturer at Tokyo Medical & Dental University and maintains a private practice limited to endodontics since 1998. He earned his DDS in 1993 and completed his residency at Tokyo Medical & Dental University in 1995, where he also received his PhD from the Department of Endodontics. He has published several articles in peer-reviewed journals nationally and internationally. He also authored in several chapters in textbooks including the 11th edition of " Pathways of the Pulp". He has lectured nationally and internationally and was exposed twice on National TV for modern endodontics. Private practice in Tokyo CT & MicroEndodontic Center Umi Square 3F 3-3-1 Churinkan Yamato City, Kanagawa, 242-0007 Japan Phone +81-46-293-6470 Fax +81-46-293-6470 2001: Presidential Award by JEA 2008: Wakai Award by JEA 2007: Part-time Lecturer at Tokyo Medical & Dental University, department of Pulp biology and Endodontics

### PUBLICATIONS

- Terauchi Y, O'Leary L, Suda H. Removal of separated files from root canals with a new file removal system: Case reports. J Endod 2006;32:789-97.
- Terauchi Y, O'Leary L, Kikuchi I, Asanagi M, Yoshioka T, Kobayashi C, Suda H. Evaluation of the Efficiency of a New File Removal System in Comparison With Two Conventional Systems , J Endod 2007;33:585-88
- Terauchi Y, Ebihara S. AAE 2004 Annual Session. Journal of Japan Endodontic Association, Vol.25, No.3: 153-154, 2004.
- Terauchi Y. AAE 2006 Annual Session. Journal of Japan Endodontic Association, Vol.27, No.3: 148-151, 2006.

- Terauchi Y, Yoshioka T, Kobayashi C, Suda H. Broken file removal from a root canal under a microscope: Case report. Journal of Japan Endodontic Association, Vol.20, No.2: 153-154, 1999
- Terauchi Y New Broken File System. Dental Diamond, Vol.28, No.1:73- 77,2003
- Terauchi Y. Broken file removal with Ultrasonics and Loop device. Dental Diamond, Vol.29. No.2:44-48,2004
- Terauchi Y. Application of a microscope to Endodontics. Intra-canal obstruction, Dental Outlook special edition, Let's Start Microdentistry. 88- 100,2006
- Terauchi Y. Combination of Xray · CT and microscope. Dental Frontier, Vol.32.Summer:34-38,2005
- Y Terauchi. New Endodontics, Dental Outlook, 1999.
- Terauchi Y. Microendodontics in combination of a micro CT, Endodontic Bulletin. Malaysian Endodontic Society, Vol.17, 49-54,2006
- Terauchi Y. Endodontics without fail.the Quintessence, Vol26, No.5:172- 184,2007
- Terauchi Y. How to Endodontics. Acce 15. Terauchi Y. How to Endodontics. Root canal preparation · Cleaning &Shaping (Part1) .the Quintessence, Vol.27, No.3:40-64,2008
- Terauchi Y, Le O'Leary, Suda H. Removal of separated files from root canals with a new file removal system: Case reports. Clinical Research in Dentistry, Vol.5, No.1:81-92,2008 ,
- Terauchi Y. How to Endodontics. Root canal preparation · Cleaning &Shaping (Part1) .the Quintessence, Vol.27, No.3:40-64,2008
- Terauchi Y. A New Method to Correct Ledged Canals: Case reports, Endodontic Bulletin. Malaysian Endodontic Society, Vol.18, 49-54,2007
- Terauchi Y. How to Endodontics. Root canal preparation · Cleaning &Shaping (Part 2) .the Quintessence, Vol.27, No.6:44-63,2008
- Terauchi Y. Long-term prognosis. ②Successful endodontics: case reports. Dental Diamond, Vol.33. No.473:54-61,2008
- Terauchi Y. Iatrogenic accidents such as separated files. Prevention of file breakage. Dental Diamond, additional edition. Vol.33. No.477:82-85,2008
- Terauchi Y. Correction of Ledged Canals with Ultrasonic Tips. Dentistry Today 2008;10:48-51.
- Terauchi Y. Comparison of the time required to cause secondary fracture of broken files by ultrasonic vibration under different conditions, Endodontic Bulletin. Malaysian Endodontic Society, Vol.19, 61-66,2008
- Terauchi Y. Comparison of the Time Required to Cause Secondary Fracture of Broken Files by Ultrasonic Vibration under Different Conditions, Endodontic Bulletin. Malaysian Endodontic Society, Vol.19, 71-79,2008

- Terauchi Y. Office style & Clinical Style. Dental Diamond.150-155,2009
- Terauchi Y. What is endodontics? NICO. the Quintessence.6-25,2009
- Terauchi Y. How to Endodontics. Obturation. the Quintessence, Vol.28, No.4:32-60,2009
- Terauchi Y, Kratchman S. The report on AAE annual session 2009, the Quintessence, Vol.28, No.8:170-173,2009
- Terauchi Y and Buchanan LS. Outlook and Current Situation of Endodontics in Japan and US (Proposal for Future Endodontics), the Quintessence, Vol.29, No.1:99-112, 2010
- Terauchi Y. Apical Surgery on Fractured roots: Case reports. Dentistry Today 2010;08:86-91.
- Terauchi Y. Cutting Edge in Endodontics, 1st edition. Quintessence Publishing corporation.
- Terauchi Y. Separated file removal. Dentistry Today 2012;31:110-3
- Terauchi Y, O'Leary L Yoshioka T, Suda H. Comparison of the time required to create secondary fracture of separated file fragments using Ultrasonic Vibration under Various Canal Conditions. J Endod 2013;39:1300 –5.
- Terauchi Y. Managing Iatrogenic Endodontic Events. In: Cohen's. Pathways of the pulp, 11th ed. St. Louis, MO: CV Mosby, 2015:722–755.

#### RESEARCH & LECTURES (HANDS-ON WORKSHOPS) PRESENTED

1999: Japan Endodontic Association (JEA) Annual Session, Osaka, Japan

2001: Japan Endodontic Association (JEA) Annual Session, Nagoya, Japan

2003: American Association of Endodontists (AAE) Annual Session, Tampa, Florida

2004: Japan Endodontic Association (JEA) Annual Session, Niigata, Japan

2004: American Association of Endodontists (AAE) Annual Session, Anaheim, California

2005: Japan Association of Microscopic Dentistry (JAMD) 2006: American Association of Endodontists (AAE) Annual Session, Honolulu, Hawaii

2006: Endodontic Summit in Kuala Lumpur, Malaysian Endodontic Society (MES)

2007: American Association of Endodontists (AAE) Annual Session, Philadelphia, Pennsylvania

2008: Tsutusui Seminar, Fukuoka, Japan

2008: Japan Endodontic Association (JEA) Annual Session, Chiba, Japan

2008: SDC Endo Seminar, Kanagawa, Japan 2008: Endo Lecture, Kagawa, Japan

2008: Naniwa school Endo Seminar, Osaka, Japan 2008: CERI Endo Seminar, Osaka, Japan

2007-2010: Hands-on Courses, Tokyo, Japan

2009: JEA Winter Seminar, Tokyo, Japan 2009: CERI Endo Seminar Osaka, Japan

2009: SJCD Lecture, Tokyo, Japan

2009: Chairside Meeting, Tokyo, Japan

2009: Endodontic Seminar by Dentsply Sankin, Osaka, Japan

2009: Endodontic Seminar by Dentsply Sankin, Tokyo, Japan

2009: JEA Summer Seminar, Tokyo, Japan 2009: Demonstration of broken file removal on Fuji TV nationwide, Japan

2010: JEA Winter Seminar, Tokyo, Japan 2010: JIO (The Japan Institute of Orthodontists) annual meeting, Tokyo, Japan

2010: Endo seminar by Mokuda Dental Corporation, Kobe, Japan

2010: PGI (Practical Gnathology Institute) seminar in endodontics, Tokyo, Japan

2010: JEA annual session, Tokyo, Japan

2010: JEA Summer Seminar, Tokyo, Japan

2011: 8 lectures on retreatment in Japan and 6 hands-on courses on advanced endodontics in Japan

2012: AAE lecture on Instrument retrieval, Boston, April

2012: 8 lectures on retreatment in Japan and 6 hands-on courses on advanced endodontics in Japan

2013: Lecture for AEEDC titled Removal of Separated Instruments with a Newly Designed System, Dubai, February

2013: AAE hands-on workshop on instrument retrieval, Hawaii, April 2013: IFEA lecture on Instrument retrieval, Tokyo, May

2013: 8 lectures on retreatment in Japan and 6 hands-on courses on advanced endodontics in Japan

2014: University of Minnesota half-day hands-on course on instrument retrieval, Minnesota, April

2014: AAE lecture titled Utilizing the Super High Resolution CBCT Scan in Endodontics: Diagnosing Hidden Root Fractures and Lesions for Optimum Clinical Results, Washington DC, May

2014: University of Toronto one-day hands-on course on instrument retrieval, Toronto, May

2014: Chinese Dental Association lecture on instrument retrieval, Beijing, June

2014: University of Pennsylvania Lecture and hands-on course on instrument retrieval, Philadelphia, November

2014: Two lectures for the Endo Summit of Biennial MES-SES Joint Scientific Meeting and AGM titled Broken instrument retrieval and Root Canal Instrumentation - Predictability & Simplicity, Malaysia, November

2014: 11 lectures on retreatment in Japan and 10 hands-on courses on advanced endodontics in Japan

2015: Endodontic diplomat two-day hands-on course on retreatment, Barcelona, January

2015: AAE lecture titled Safe and efficient root canal instrumentation with more predictability, Seattle, May

2015: Two lectures for CANAL

2015 MUNDIAL DE ENDODONTIA titled Removal of gutta-percha fillings and removal of broken Instruments, BELO HORIZONTE, June

2015: 15 lectures on retreatment in Japan and 12 hands-on courses on advanced endodontics in Japan  
2016: 6th International Endodontic Congress, Lecture titled Separated file removal in combination with CBCT. Moscow, March

2016: UCLA Lecture on instrument retrieval, Los Angeles, April

2016: Loma Linda University Lecture and hands-on course on instrument retrieval, Loma Linda, April

2016: AAE hands-on workshop on instrument retrieval, San Francisco, April

2016: Royal Australasian College of Dental Surgeon' and 'Hong Kong Endodontic Society' Conjoint Scientific Meeting. Two lectures titled Predictable techniques to bypass a ledge and

remove a broken instrument with TFRK Safe, and Efficient root canal instrumentation with more predictability 2016: Boston University Lecture and hands-on course on instrument retrieval, Boston, May

2016: IFEA Keynote lecture titled Cutting edge technique to retrieve a fractured instrument, Cape Town, June

2016: One-day lecture for AEROC 2016 (Academy of Endodontology) on Retreatment including instrument retrieval, Taiwan, September

2016: Lecture and Hands-on workshop on instrument retrieval for AMEAC ENDOLATINOS 2016, Querétaro (Mexico), November

2016: SIE (Society of Italian Endodontists, International Congress 2016) Lecture titled The easiest technique to remove a separated instrument, Rome (Italy), November

2016: 17 lectures on retreatment in Japan and 9 hands-on courses on advanced endodontics in Japan

2017: Dental Education Laboratories workshop on The Art of File Retrieval in Santa Barbara, March

2017: APEC lecture titled "The most predictable technique to remove a separated instrument " and a workshop titled "Removal of a separated instrument " in Delhi India, April

2017: Mahidol Endodontics International Symposium 2017 titled "The microscopic workshop on the art of safety canal instrumentation and File removal" and "The art of safety canal instrumentation and file removal" in Bangkok Thailand, May

2017: White Dental workshop titled "instrument retrieval" and lecture titled "Retreatment" in Taiwan, July

2017: ESE lecture titled "Safe and predictable techniques to remove fractured instruments from root canals" in Brussels, September

2017: five workshops on instrument retrieval and four workshops on endodontic retreatment, and four workshops on basic endodontics, three workshops on microscopic dentistry, nine lectures on MTA in Japan from January to December

2018: Lecture and workshop on instrument retrieval for EndoInn in Norway, February 2018: Workshop on instrument retrieval for From the Roots in Paris, April

2018: Lectures titled "Separated instruments", and "MTA obturation for questionable teeth" for AAE in Denver, Paris

2018: Canal 2018 lecture titled "Predictable removal of Separated Instruments" in Belo Horizonte, Brazil, May

2018: Workshop on instrument retrieval for Dental Educational Laboratories in Santa Barbara, CA, June

2018: Lecture for ASEAN endodontic forum of ESP titled "Predictable and minimally invasive removal of the Separated Instrument" in Manila, the Philippines, July

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## **PREDICTABLE AND MINIMALLY INVASIVE REMOVAL OF FRACTURED INSTRUMENTS**

An instrument fracture is very frustrating and instrument retrieval is considered even more challenging in endodontics than any other part of endodontic procedure. It is reported that when NiTi instruments fracture, they mostly fracture in the apical one-third or beyond a curve of the canal because of the superelastic property. In addition, the instrument fracture immediately hinders the clinician from performing further treatment, and thus the outcome of the treatment will be compromised. Although the success rates of instrument retrieval with ultrasonics are in the range of 80 to 90 %, ultrasonic retrieval has never been 100 % successful and it is deemed to be unpredictable in terms of time and dentin sacrifice. The disadvantages of traditional instrument removal techniques are excessive removal of dentin during trephine, which may result in perforation or predispose the tooth to vertical root fracture. Hence it is essential to maintain as much tooth structure as possible to prevent root fracture and perforation. Therefore, in the lecture unique techniques for instrument retrieval will be proposed and discussed to make the instrument retrieval highly predictable and minimize dentin sacrifice. The recent literature has shown that the instrument retrieval with this technique was predictable and was significantly more successful and more conservative in dentin sacrifice than that with ultrasonics. The unique procedures in combination with CBCT for instrument retrieval will also be shown and discussed using contemporary concepts.