



## The Five-Second Rule



It is not an uncommon experience or practice. We are either guilty ourselves, or we have witnessed it. While eating or about to savour a food item, it is accidentally dropped. Often, we instinctively retrieve it, and having made some effort to clean it, continue to consume rather than dispose of the dropped food item. For the majority, it is a natural human tendency to ignore the fact that microbial transference occurs once food is dropped and can no longer be considered “clean”. Yet, especially if retrievable and done so promptly, this fact is often conveniently ignored and the dropped food is still consumed. What is the acceptable time duration after it is dropped and then retrieved? Is food still “safe” to be consumed?

The “five-second rule” is based on the assumption that dropped food, if it is picked up within five seconds, is unlikely to be grossly contaminated and therefore is still deemed acceptable to eat. It is also known as the ‘three-second rule’ for the more hygiene-conscious among us, or those preferring a wider safety margin; or the “10-second rule” for those who are less safety stringent or maybe more hungry!

The equivalent scenario in endodontics is when a root filling may be contaminated, if the coronal seal is breached. Commonly, this happens because of a defective restoration, secondary caries, loss of the coronal restoration or a combination. Is there an endodontic equivalent to the five-, three- or 10-second rule? Is it acceptable to just manage the coronal leakage and/or provide a new restoration without first revising the existing root filling? Should we ignore the risk that the exposed, and more than likely contaminated, root filling may at a later stage have a negative impact on periradicular health?

There is an understandable lack of absolute clarity or agreement on the subject. Practical advice and suggestions vary; for example, from the need to “revise all root fillings that have been exposed to the mouth for more than a month, even if they appear technically satisfactory on radiographs”<sup>1</sup>, to a more relaxed

approach, that coronal leakage and microbial contamination has limited effect on treatment outcome<sup>2</sup>.

The intention of this editorial is not to try and define the parameters, formulate criteria or even issue guidelines on the management of such cases. It is merely an observation that decision-making is a complex subject. There are often no clear, right or wrong answers. There is also always an element of subjectivity with any decision-making process, human beings being human beings. Furthermore, whether the decision made is right or wrong, arguably, only time will tell.

Like all questions in need of answers, with dropped food, the ‘five-second rule’ or its equivalent had been subjected to scientific investigations. Factors that may influence the extent of contaminant transference include the type of food dropped and the inherent degree of surface contamination, which is linked to variables such as to the location of the floor (e.g. kitchen, living room etc) and the type of floor covering (e.g. carpet or tiles). The majority consensus is that regardless of all these factors and whether it relates to 10, five, or three seconds, it is prudent to dispose of, rather than retrieve and consume, the dropped food. Therefore, if it is not considered acceptable to consume contaminated food, why ignore and accept an already exposed and contaminated root canal filling without considering revision?

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### References

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2. Ricucci D, Gröndahl K, Bergenholtz G. Periapical status of root-filled teeth exposed to the oral environment by loss of restoration or caries. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2000;90:354–359.