

INTRODUCTION

Cosmetic Whitening treatments are the most challenging procedure these days. With the advancement in science and technology, numerous whitening agents and techniques are available in the dental industry.

Intrinsic or extrinsic stains or a combination of both factors are the causative agents that might result in tooth discoloration.

There are two primary methodological approaches that are utilized to remove such stains. The first one using a chemical means e.g peroxides for tooth bleaching and the second is a mechanical approach using prophylactic toothpastes e.g whitening dentifrices with specific formulations to remove stains that ultimately results in the whitening effect.

OVERVIEW

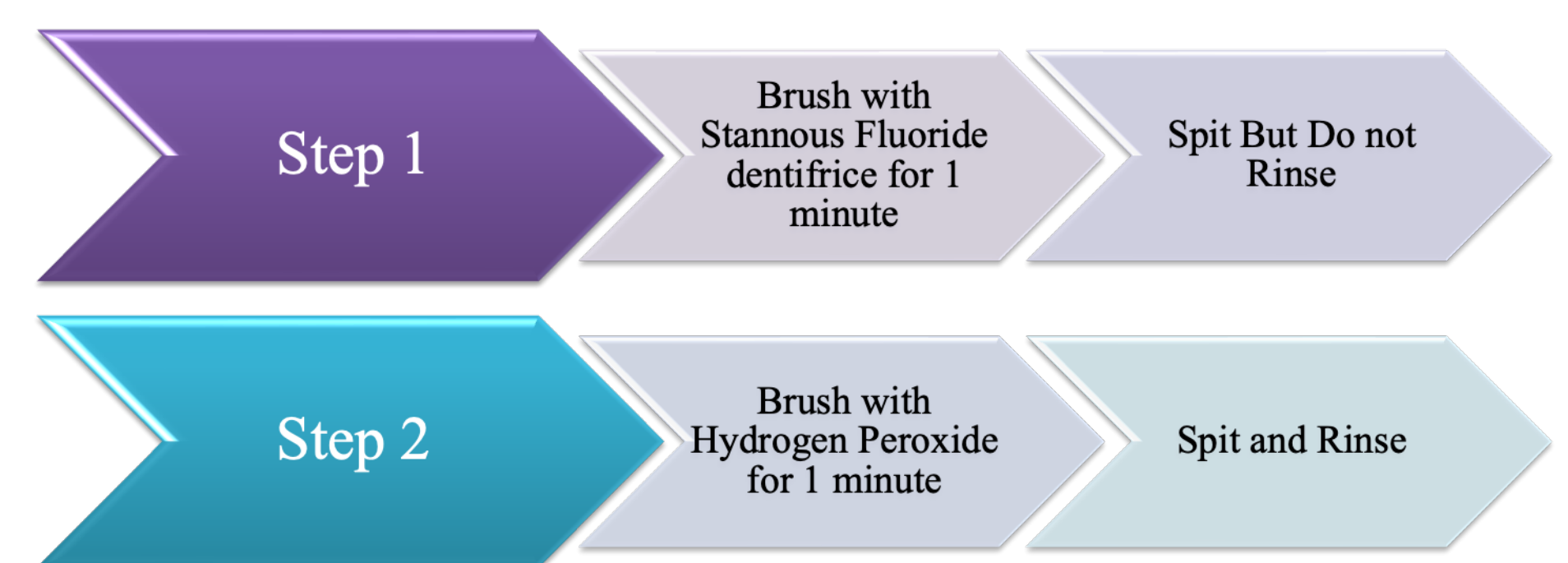
- Another study supported the use of novel intervention (two-step gel sequence) showed the similar results (greater reductions in gingival bleeding) when compared with the control group utilizing the standard oral hygiene care.
- The results were seen as early as week 2 and increased over the six-week study period.
- A study by Cristina et.al., showed that the twice daily use of a two-step stannous fluoride dentifrice and peroxide whitening gel sequence provided superior gingivitis benefits when compared with the chlorohexidine gluconate rinse.

Novel Formulation

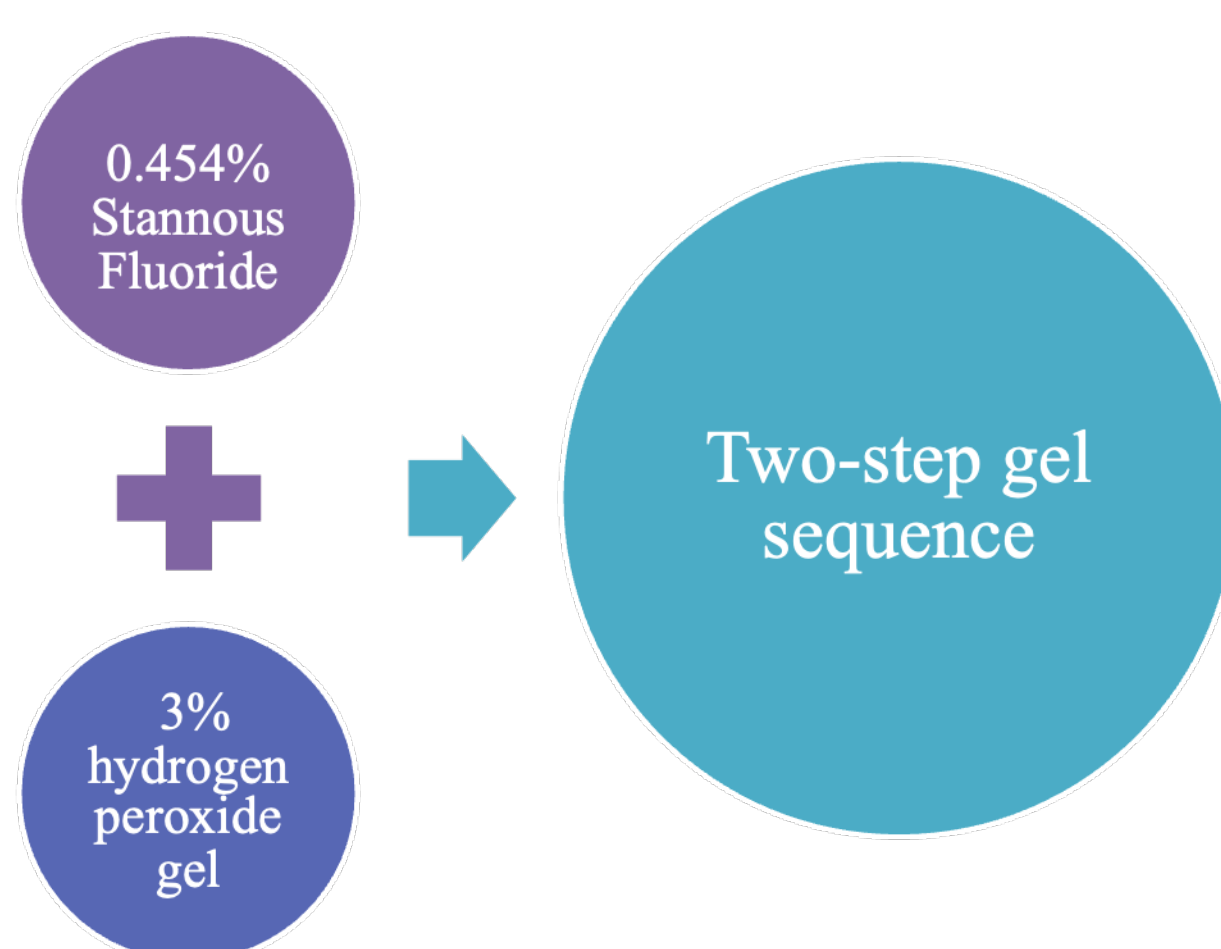
A recently introduced two-step gel sequence with a specific chemical formulation consists of Stannous Fluoride paste (0.454% Stannous Fluoride and 3% Hydrogen Peroxide) aim to provide dual benefits of providing cosmetic and therapeutic approach.

This new two step dentifrice gel seems to be a promising, cost-effective and time saving method that significantly demonstrates reduced extrinsic stains and gingivitis in targeted population after just one week of analyzing the treatment outcomes with baseline.

Novel Brushing Instructions



Chemical Formulation of Two-step Sequence



Risk/Benefit Assessment

KNOWN POTENTIAL RISKS

- Overall, there are no known potential risks associated with the use of whitening gel sequence.
- As the product formula consists of stannous fluoride 0.454% which is known to cause remineralization effect and has antibacterial properties.
- While 3% hydrogen peroxide might cause initial sensitivity issues at the baseline in some patients.
- Immediate low risk: sensitivity issues
- Long-range risk: not known long-term risks known so far.

OBJECTIVES

Primary Objective: The primary objective of this review was to evaluate the efficacy of using two-step dentifrice/gel sequence for evaluating the concurrent gingivitis condition.

The secondary objective was to assess the overall impact of using whitening gel with dual benefits on oral health and quality of life of patients.

CONCLUSION

Overall, cosmetic procedures often give only cosmetic or pleasing appearance. Two-step gel sequence significantly demonstrates reduced extrinsic tooth stains and concurrent gingivitis.
Immediate potential benefits: therapeutic and cosmetic
Long-range potential benefits: psycho-social well being and improved quality of life.

OVERVIEW

- A clinical trial was conducted by Amini P et al., to evaluate the effectiveness of using a two-step dentifrice whitening gel sequence on concurrent gingivitis and extrinsic tooth discoloration.
- After one week of clinical assessment, newly formulated whitening gel sequence exhibited significant ($P < 0.0001$) reductions in both gingivitis and extrinsic stains. Treatment was well-tolerated by the patients.
- Hence, this intervention seems appealing to provide therapeutic and cosmetic benefits to the patients.

REFERENCES

1. Amini P, Amini A, Gerlach RW. Randomized controlled trial evaluating concurrent gingivitis and stain effects of a two-step dentifrice/gel sequence. *Am J Dent.* 2018 Jul;31(Sp Is A):13A-17A. PMID: 30106528.
2. Sagel PA, Gerlach RW. Clinical evidence on a unique two-step stannous fluoride dentifrice and whitening gel sequence. *Am J Dent.* 2018 Jul;31(Sp Is A):4A-6A. PMID: 30106526.