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CE Course Handout

Fears, Facts and Fiction: A Collaborative Approach to Closing the Gap between What We Know and What We Practice with Our Sensitive Patients

June 15th, 2017



American
Dental
Hygienists'
Association

Fears, Facts and Fiction: A Collaborative Approach to Closing the Gap between
What We Know and What We Practice
with Patients who have Dentin Hypersensitivity

June 15, 2017

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Dentin Hypersensitivity

Overview of the Condition

Definition - Short, sharp pain arising from exposed dentin, in response to an external stimuli, which cannot be ascribed to any other dental disease or defect

Risk Factors

Periodontal Tissues

Aggressive oral hygiene habits
Gingival recession
Periodontal disease

Tooth/Restorative

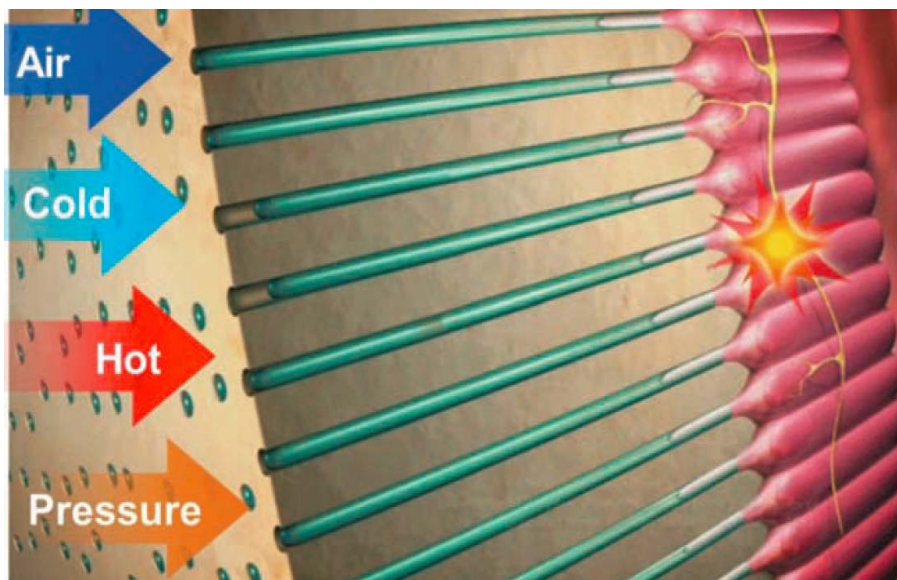
Abrasion, attrition, abfraction
Restorative procedures
Erosion

Differential Diagnosis

Mechanism of Hypersensitivity

Brännström's Hydrodynamic Theory

- Open and Exposed Dentin Tubules
- External Stimulus causes fluid movement
 - Stimulates nerve
 - Creates pain impulse



Patient Management and Interventions

Tubule Occlusion

- Shields the fluid from external stimulus
- Prevents fluid movement
- Addresses the cause of the pain

Pro-Arginine technology

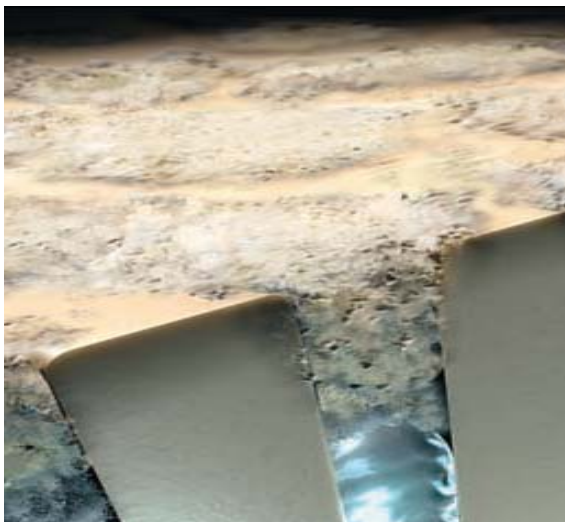
- Arginine and calcium carbonate
- Proprietary to Colgate

Arginine

- Amino Acid
 - Produced by the body and naturally found in saliva
 - FDA categorized as safe in food
 - Naturally found in some food
 - Food supplements/baby foods

Mode of Action

- Arginine and CaCO_3 bind to the dentin surface to form a calcium-rich layer on the surface & in dentin tubules to plug & seal them.
- The occlusion protects dentin fluid from exposure to external stimuli, helping to prevent fluid movement.
- Blocking of the fluid movement addresses the cause of pain and discomfort.



The seal closes off the tubule ends and prevents dentinal fluid movement and thus stimulation of the mechanoreceptors adjacent to the odontoblasts, eliminating the sensation of dentin hypersensitivity

Application

Apply with a prophy angle at low speed
Apply before and/or after scaling treatment

If a fluoride varnish or other fluoride treatment is applied apply Pro-Relief prior to application of fluoride

Potassium Salts to Desensitize the Nerve

- Increase potassium ion concentration at the nerve membrane
- Desensitize the nerve
 - Compatible with fluoride and available in over-the-counter and prescription strength fluoride toothpaste
 - Effective – **takes time**
- _____ (Instructions for use)
- **Minimum of two weeks**
- _____ (time likely needed for significant pain reduction)

| Drug Facts | |
|--|-----------------|
| Active Ingredients | Purpose |
| _____ | Antisensitivity |
| Sodium fluoride 0.24% (0.14 w/v fluoride ion) | Anticavity |
| Uses <ul style="list-style-type: none"> • builds increasing protection against painful sensitivity of the teeth to cold, heat, acids, sweets on contact • Helps protect against cavities | |
| Warnings When using this product, if pain/sensitivity persists after _____ weeks of use, please visit your dentist. Stop use and ask a dentist if the problem persists or worsens. Sensitive teeth may indicate a serious problem that may need prompt care by a dentist. Keep out of reach of children. If more than used for brushing is accidentally swallowed, get medical help or contact a Poison Control Center right away. | |

| Drug Facts (Continued) | |
|--|--|
| Directions | |
| Adults and children 12 years and older | Apply at least a 1 inch strip of the product onto a soft bristles toothbrush. Brush teeth thoroughly for at least 1 minute twice a day (morning and evening) or as recommended by a dentist or physician. Make sure to brush all sensitive areas of the teeth. |
| Children under 12 years | consult a dentist or physician |
| Inactive ingredients water, hydrated silica, glycerin, sorbitol, PEG-12, tetrapotassium pyrophosphate, PVM/MA copolymer, flavor, sodium lauryl sulfate, poloxamer 407, sodium hydroxide, sodium saccharin, cellulose gum, xanthan gum, titanium dioxide | |
| Questions? 1-800-468-6502 | |

Patient Management Considerations

In office

Provide individualized education, consultation and referral if necessary

- Patient demonstration of proper tooth brushing and interdental debridement techniques
- Review of diet - identify exogenous acids

Consultation

- Analyze diet for acidic foods, beverages and frequency of consumption
- Removing or modifying predisposing risk factors or causes
- Avoid brushing immediately following exposure to an acidic food or beverage
- When relevant, elevate awareness of contributory factors
 - Medications
 - Xerostomia
 - GERD
 - Bulimia
- Treatment of diseases that associate regurgitation, or severe vomiting (gastric acid reflux, bulimia)
- Professionally applied agents

Self-treatment

Recommendations

- Use of an Ultra or Extra soft toothbrush is recommended
- Use of fluoride toothpaste with Potassium nitrate as an active ingredient
 - For patients assessed at a higher risk for dental caries, prescription strength fluoride toothpaste with Potassium nitrate is recommended
 - For patients assessed at a lower risk for dental caries, over-the-counter fluoride toothpaste with Potassium nitrate is recommended

Notes

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Action plan for managing patients with dentin hypersensitivity

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