

**TEETH
DISCOLORATION
AND
HOMOEOPATHY**

**Dr. Rajneesh Kumar Sharma MD (Homoeopathy)
DR. Swati Vishnoi BHMS**

Tooth Discoloration and Homoeopathy

© Dr. Rajneesh Kumar Sharma M.D. (Homoeopathy)
Dr. Swati Vishnoi B.H.M.S.
Homoeo Cure & Research Institute
NH 74, Moradabad Road, Kashipur (Uttaranchal) INDIA
Pin- 244713 Ph. 05947- 260327, 9897618594
E. mail- drrajneeshhom@hotmail.com
www.treatmenthomeopathy.com
www.homeopathyworldcommunity.com



Contents

Teeth Color	2
Classification of tooth discoloration.....	2
Extrinsic Staining.....	2
Intrinsic Staining.....	2
Mechanism of Teeth discoloration	3
Types of teeth discoloration.....	3
Brown stain.....	4
Tobacco stain.....	4
Black stain.....	4
Orange stain.....	4
Green stain.....	4
Metallic stain.....	4
Chlorhexidine stain.....	4
Predisposing Factors.....	4
Causes of discoloration.....	5
Intrinsic tooth discoloration.....	5
Alkaptonuria.....	5
Congenital erythropoietic porphyria.....	5
Congenital hyperbilirubinaemia.....	5
Amelogenesis imperfecta.....	5
Systemic syndromes.....	5
Dentinogenesis imperfecta.....	5
Dentinal dysplasias.....	5
Tetracycline staining.....	5
Fluorosis.....	6
Enamel hypoplasia.....	6
Pulpal haemorrhagic products.....	6
Root resorption.....	6
Ageing.....	6
Extrinsic discoloration.....	6
Direct staining.....	7
Indirect staining.....	7
Non-metallic stains.....	7
Metallic stains.....	7
Teeth color modalities.....	8
Prevention and Treatment.....	8
Homoeopathic Treatment.....	9
Short Repertory of Teeth discoloration.....	9
Bibliography.....	9

Teeth Color

- Teeth are made of many colors, with natural shades from the darker canines to the lighter incisors
- Variation is affected by thickness of enamel and dentine, and reflectance of different colors
- Blue, green and pink tints is by virtue of enamel while yellow being through brown shades of dentine beneath enamel
- Canine teeth are darker than lateral incisors
- Teeth become darker with age due to secondary/tertiary dentine, tooth wear/dentine exposure



Classification of tooth discoloration

Teeth can become discolored by stains on the surface or by changes inside the tooth. Oral cavity is subjected to many exogenous and endogenous substances that stains the teeth. Also the oral flora contains many type of chromogenic deposits which also causes stain deposit. There are three main types of tooth discoloration-

Extrinsic Staining

This occurs when the outer structure of tooth i.e. the enamel is stained. Extrinsic stains are defined as stains located on the outer surface of the tooth structure and caused by topical or extrinsic agents.

- **Food and Drinks** - Coffee, tea, soda and red wine can cause tooth stains when consumed over a long period of time. Berries, curries and soy sauce are just a few of the foods that stain teeth. Foods and drinks of extreme temperatures can also affect tooth color- the heat and cold open and close the pores in the teeth, allowing staining agents to attack them with greater force. **Smoking** -- Smoking can greatly discolor teeth. Any tobacco product has overwhelming effects on teeth.
- **Poor dental hygiene.** Poor brushing, flossing, and rinsing with an antiseptic mouthwash to remove plaque and stain-producing substances like coffee and tobacco can cause tooth discoloration.

Intrinsic Staining

This occurs when the inner structure of the tooth i.e. the dentin darkens or gets a yellow tint.

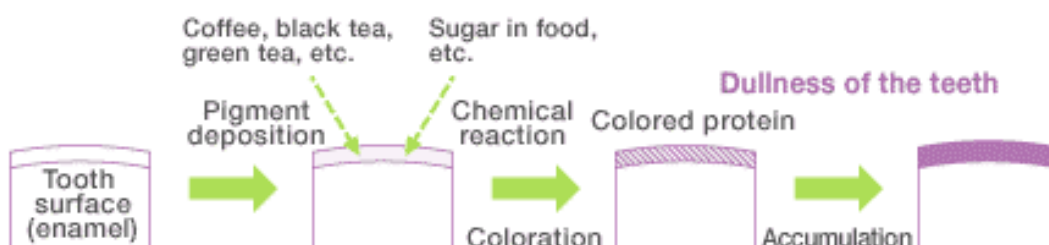
- **Disease.** Several diseases that affect enamel and dentin can lead to tooth discoloration. Treatments for certain conditions can also affect tooth color. The head and neck radiation and chemotherapy can cause teeth discoloration. Some infections during pregnancy can cause tooth discoloration in the infant by affecting enamel development.

- **Drugs** -- Antibiotics such as tetracycline can cause discoloration in children whose teeth are still forming. Antihistamines, antipsychotic and antihypertensive medications may also cause staining. Some mouthwashes may cause teeth discoloration.
- **Trauma** -- Chipped teeth or broken teeth can become darker due to enamel damage or a dead nerve. This teeth discoloration is also possible if a tooth is not capped following major dental surgery, such as a root canal.
- **Dental Fillings** -- Tooth decay is often evident in brown or black spots on teeth. A large amalgam tooth filling can also cause outlying enamel to appear gray.
- **Dental materials.** Some of the materials used in dentistry, such as amalgam restorations, especially silver sulfide-containing materials, can give a gray-black color to teeth.
- **Environment.** Excessive fluoride either from environmental sources like naturally high fluoride levels in water or from excessive use like fluoride applications, rinses, toothpaste, and fluoride supplements taken by mouth can cause teeth discoloration.
- **Advancing age.** As age advance, the outer layer of enamel on your teeth gets worn away, revealing the natural yellow color of dentin.
- **Genetics.** Some people have naturally brighter or thicker enamel than others.



Mechanism of Teeth discoloration

Normally, the surface of the tooth enamel is covered by a thin salivary membrane called pellicle. When tannin in black tea, green tea or coffee or cigarette tar and nicotine bonds with calcium or metallic ions in saliva, stains are formed.



Types of teeth discoloration

Pigmented deposits on the tooth surface are called dental stains. Stains are ordinary colorless. The acquired or developmental coating become pigmented by chromogenic bacteria, Foods and chemicals.

Brown stain

This is a thin, translucent, acquired bacteria free pigment pellicle. The color is due to tannin. Its causes are insufficient brushing and inadequate cleansing action of dentifrice. Main sites are- buccal surface of maxillary molars and lingual surface of mandibular incisors.

Tobacco stain

These are tenacious dark brown or black with brown discoloration and caused by coal tar combustion products as well as penetration of pits and fissures, enamel and dentine by tobacco juices.

Black stain

This is a thin black line, firmly attaches, tends to recur, common in woman, may occur in excellent hygiene. It commonly affects near the gingival margin of facial and lingual surface of a tooth and as a diffuse patch on the proximal surface. It is usually caused by caries in children and chromogenic bacteria e.g. Gm. positive rods-Actinomyces species -Bacteriodes melaninogenicus.

Orange stain

It is seen on both facial and lingual surface of anterior teeth and caused by *Serratia marcescens* and *Flavobacterium lutescens*.

Green stain

These are green or greenish yellow stains of considerable thickness on facial surface of maxillary anterior teeth. This type of stain is considered as stained remnants of enamel cuticles. Children are frequently affected. Its main causes are fluorescent bacteria-*Penicillium*, fungi-*Aspergillus*'s and children with T. B. or cervical lymph node.

Metallic stain

This type of stain is caused by metals and metallic salts. Metals are penetrated into tooth substances and produces permanent decolorization or they bind with pellicle and produce surface stain. For example- introduction of metals into oral cavity, metal containing dust inhalation by worker and oral administration of drugs. Some metals that cause's stains are- Copper dust- Green stain, Iron dust- Brown stain, Magnesium- Black stain, Silver- Black stain, Iodine- Black stain and Nickel- Green stain. Metal penetrating into tooth substance causes permanent discoloration whereas that bind with pellicle causes surface stain.

Chlorhexidine stain

Chlorhexidine has affinity for sulfate and acidic groups such as those found in pellicle, plaque constituents, carious lesion and bacterial cell wall. So it is retained into oral cavity and stained oral tissues. Main sites affected are cervical and interproximal area of the teeth, as well as plaque and other restorations. Tongue color becomes yellowish brown to brownish.

Predisposing Factors

Certain factors predispose children and adults to extrinsic stains, include enamel defects, salivary dysfunction, and poor oral hygiene.

Microscopic pits, fissures, and defects in the outer surface of the enamel are susceptible to the accumulation of stain-producing food, beverages, tobacco, and other topical agents.

As saliva plays a major role in the physical removal of food debris and dental plaque from the outer and interproximal tooth surfaces, diminished salivary output contributes to extrinsic discoloration. Decrease in saliva may be caused due to any disease.

The most common cause of extrinsic stains is poor oral hygiene.

Causes of discoloration

Intrinsic tooth discoloration

This occurs during tooth development and results in an alteration of the light transmitting properties of the tooth structure. There are a number of genetic and metabolic disorders which affect the dentition during its formation.

Alkaptonuria

This inborn error of metabolism results in incomplete metabolism of tyrosine and phenylalanine, which promotes the buildup of homogentisic acid. This affects the permanent dentition by causing a brown discoloration.

Congenital erythropoietic porphyria

This is a rare, recessive, autosomal, metabolic disorder in which there is an error in porphyrin metabolism leading to the accumulation of red-brown porphyrins in bone marrow, RBC, urine, faeces and teeth.

Congenital hyperbilirubinaemia

The breakdown products of haemolysis cause a yellow-green discolouration as in neonatal jaundice.

Amelogenesis imperfecta

In this hereditary condition, enamel formation is disturbed with regard to mineralization or matrix formation and yellow to brown shades appear.

Systemic syndromes

Defects in enamel formation may also occur in a number of systemically involved clinical syndromes such as Vitamin D dependent rickets, epidermolysis bullosa and pseudohypoparathyroidism.

Dentinogenesis imperfecta

Dentine defects may occur genetically or through environmental influences. The genetically determined dentine defects may be in isolation or associated with a systemic disorder.

Dentinal dysplasias

The inherited dentine defects may affect the teeth discoloration.

Tetracycline staining

Systemic administration of tetracyclines during development is associated with deposition of tetracycline within bone and the dental hard tissues.



Fluorosis

This may arise endemically from naturally occurring water supplies or from fluoride delivered in mouth rinses, tablets or toothpastes as a supplement. The enamel is often affected and may vary from areas of flecking to diffuse opacous mottling, whilst the colour of the enamel ranges from chalky white to a dark brown/black appearance.

Enamel hypoplasia

This condition may be localised or generalised. The most common localised cause of enamel hypoplasia is likely to occur following trauma or infection in the primary dentition.

Disturbance of the developing tooth germ may occur in a large number of foetal or maternal conditions eg maternal vitamin D deficiency, rubella infection, drug intake during pregnancy and in paediatric hypocalcaemic conditions.

Pulpal haemorrhagic products

The discolouration of teeth following severe trauma was considered to be caused by pulpal haemorrhage. Haemolysis of the red blood cells would follow and release the haem group to combine with the putrefying pulpal tissue to form black iron sulphide.

Root resorption

Root resorption is often clinically asymptomatic, however, occasionally the initial presenting feature is a pink appearance at the amelo-cemental junction.

Ageing

The natural laying down of secondary dentine affects the light-transmitting properties of teeth resulting in a gradual darkening of teeth with age.

Extrinsic discoloration

The causes of extrinsic staining can be divided into two categories-

Direct staining

It is caused by those compounds which are incorporated into the pellicle and produce a stain as a result of their basic color. The chromogens derived from dietary sources or habitually placed in the mouth are common causes. These organic chromogens are taken up by the pellicle and the color imparted is determined by the natural color of the chromogen. Tobacco smoking and chewing are known to cause staining, as are particular beverages such as tea and coffee. The color seen on the tooth is thought to be derived from polyphenolic compounds which provide the color in food.

Indirect staining

It is caused by those which lead to staining caused by chemical interaction at the tooth surface. It is associated with cationic antiseptics and metal salts. The agent is without color or a different color from the stain produced on the tooth surface.

These stains may be metallic or nonmetallic.

Non-metallic stains

The non-metallic extrinsic stains are adsorbed onto tooth surface deposits such as plaque or the acquired pellicle. These include dietary components, beverages, tobacco, mouth rinses and other medicaments. Chromogenic bacteria have been cited in children. Stain may be green and orange in children with poor oral hygiene and black/brown in those with good oral hygiene and low caries experience.



Metallic stains

The occupational exposure to metallic salts and with a number of medicines containing metal salts may cause teeth staining. Black staining of teeth is seen in people using iron supplements and iron foundry workers. Copper causes a green stain. Potassium permanganate produces a violet to black color while silver nitrate salt used in dentistry causes a grey color, and stannous fluoride causes a golden brown discoloration.



Teeth color modalities

- Individual interpretation
- Time of day
- Patient positioning/ angle tooth is viewed at
- Hydration of tooth
- Skin tone or make-up
- Surrounding conditions e.g. Lighting in clinic

Prevention and Treatment

Although some tooth discolorations are inevitable, there are ways to prevent it.

- Can avoid consuming foods and drinks that contribute to teeth discoloration on a regular basis.
- Stop smoke or chew tobacco, and practice excellent oral hygiene.
- Check any medications resulting in tooth staining as a side effect.
- Can have dental X-rays taken during exams to check for any signs of trauma.

Choices to whiten teeth can vary depending on the cause of the discoloration and may comprise-

- Proper tooth brushing and flossing techniques
- Avoidance of the foods and beverages that cause stains
- **Bondings**- Tooth bonding or dental bonding uses a special tooth-colored resin which is applied to the tooth then hardened using a special light.
- **Ultrasonic Cleaning**- ultrasonic vibrations are used to remove some extrinsic stains caused by a buildup of calculus.
- **Teeth Whitening** – The teeth whitening trays can be worn at home. These trays are formed from a mold of teeth, and hold a gel containing the active agent peroxide. Worn daily, at-home bleaching trays can whiten teeth in 1-2 weeks.
- **Laser Teeth Whitening** -- Like teeth whitening, laser teeth whitening uses a peroxide gel to lighten teeth. After the gel is applied to teeth, a laser uses heat to activate the teeth whitening agents, with excellent results in a shorter amount of time.
- **Dental Veneers** - Veneers are ultra-thin shells of ceramic (porcelain) or a composite resin material, which are bonded to the front of teeth.

Homoeopathic Treatment

TEETH - DISCOLORATION in general **All-c.** allox. aloe ant-c. apis **ARG-N.** ars. asc-t. **Bac.** bell. brom. bry. cadm-met. calc-f. calc. **CHIN.** **CHLOR.** **Con.** **FL-AC.** gaert. hydr. ign. **IOD.** kali-c. **Kreos.** **LYC.** med. merc-c. **MERC.** merl. nat-f. **NIT-AC.** ph-ac. phos-h. phos. plb. podo. psor. puls. sabin. sep. **Sil.** squil. **STAPH.** suis-em. sul-ac. sulo-ac. syph. tab. thea **THUJ.** x-ray

Short Repertory of Teeth discoloration

MOUTH - DISCOLORATION - Gums - purple - thin border nearest teeth **PLB.**
 TEETH - DISCOLORATION - black - after aching **sep.**
 TEETH - DISCOLORATION - black - in streaks **staph.**
 TEETH - DISCOLORATION - black – spots **kreos.** **lyc.** **squil.**
 TEETH - DISCOLORATION - black – streaks **staph.**
 TEETH - DISCOLORATION – black ant-c. apis **Arg-n.** ars. calc. **CHIN.** **Chlor.** **Con.** **FL-AC.** gaert. hydr. ign. **kreos.** **MERC.** merl. **Nit-ac.** phos. plb. puls. sabin. sep. **Squil.** **STAPH.** syph. tab. **Thuj.**
 TEETH - DISCOLORATION - brown - incisors, spots sulo-ac.
 TEETH - DISCOLORATION - brown, sooty **chlor.** fl-ac. **suis-em.**
 TEETH - DISCOLORATION - dark – mottled **nat-f.**
 TEETH - DISCOLORATION - dark – spots **kreos.**
 TEETH - DISCOLORATION – dark **CHIN.** **FL-AC.** **kreos.** merc. nat-f. sabin. syph. **thuj.**
 TEETH - DISCOLORATION - gray - greenish gray x-ray
 TEETH - DISCOLORATION – gray **MERC.** phos. plb.
 TEETH - DISCOLORATION - green - greenish yellow **bac.**
 TEETH - DISCOLORATION – green **bac.**
 TEETH - DISCOLORATION - green yellow **bac.**
 TEETH - DISCOLORATION - green, dirty **bac.**
 TEETH - DISCOLORATION – spotted **nat-f.** **syph.**
 TEETH - DISCOLORATION - white, chalky – spots **FL-AC.**
 TEETH - DISCOLORATION - white, chalky – stripes calc-f.
 TEETH - DISCOLORATION - yellow - eating; after med.
 TEETH - DISCOLORATION - yellow - tea, from thea
 TEETH - DISCOLORATION – yellow **All-c.** allox. aloe ars. asc-t. bell. brom. bry. cadm-met. **Iod.** kali-c. **Lyc.** med. **Merc.** nit-ac. ph-ac. plb. podo. psor. **Sil.** sul-ac. **Thuj.**
 TEETH – DISCOLORATION all-c. ant-c. apis arg-n. ars. asc-t. **BAC.** bell. bry. cadm-met. calc-f. calc. chin. chlor. con. fl-ac. gaert. hydr. ign. iod. kali-c. kreos. lyc. med. merc-c. merc. merl. nat-f. nit-ac. ph-ac. phos. plb. puls. sabin. sep. sil. squil. staph. sul-ac. sulo-ac. syph. tab. **thuj.** x-ray
 Teeth - DISCOLORATION, teeth - black - aching, after **sep.**
 Teeth - DISCOLORATION, teeth - black - streaks, in **staph.**
 Teeth - DISCOLORATION, teeth – black **Arg-n.** **CHIN.** **Chlor.** **Con.** ign. kreos. **MERC.** merl. **Nit-ac.** phos. plb. puls. sep. **Squil.** **STAPH.** syph. **Thuj.**
 Teeth - DISCOLORATION, teeth - dark – spots **kreos.**
 Teeth - DISCOLORATION, teeth – dark **Chin.** **FL-AC.** sabin.
 Teeth - DISCOLORATION, teeth – gray **MERC.** phos. plb.

Bibliography



Encyclopedia Homoeopathica



Chapter 1. History and Physical Examination > Eruption of Teeth Clinician's Pocket Reference: The Scut Monkey, 11e ... teeth shed and erupt. (Based on data from: McDonald RE, Avery DR [eds]: Dentistry for the Child...



Chapter 1. History and Physical Examination > Eruption of Teeth Clinician's Pocket Reference: The Scut Monkey, 11e ... teeth shed and erupt. (Based on data from: McDonald RE, Avery DR [eds]: Dentistry for the Child...



Chapter 23. Dental: Diagnosis, Equipment, Blocks, and Treatment > Blocking Individual Teeth Improvised Medicine: Providing Care in Extreme Environments



Chapter 24. Oral Cavity > Innervation of the Teeth The Big Picture: Gross Anatomy ... The innervation of the teeth and gingivae are as follows (Figure 24-3B and C): An inferior...



Chapter 24. Oral Cavity > Vascular Supply to the Teeth The Big Picture: Gross Anatomy ... The arteries supplying the teeth mirror their accompanying nerves. Veins from the maxillary...



Chapter 48. Diseases of Muscle > Bilateral Palsy Presenting as an Inability to Smile, to Expose the Teeth, and to Close the Eyes Adams & Victor's Principles of Neurology, 10e



Chapter 9. Breathing/Pulmonary > Lack of Teeth Improvised Medicine: Providing Care in Extreme Environments ... It may be difficult to establish an effective seal in patients with no, or few, teeth...



Oral Diseases & Disorders > Artificial Teeth Current Diagnosis & Treatment: Geriatrics ... is a common consequence of the loss of vertical dimension. A complete denture replaces all the teeth...



Oral Diseases & Disorders > Artificial Teeth Current Diagnosis & Treatment: Geriatrics... is a common consequence of the loss of vertical dimension. A complete denture replaces all the teeth...



Oral Diseases & Disorders > Teeth & Dental Caries Current Diagnosis & Treatment: Geriatrics ... remaining teeth. Having fewer than 20 teeth compromises masticatory function and nutritional status...



Oral Diseases & Disorders > Teeth & Dental Caries Current Diagnosis & Treatment: Geriatrics ... remaining teeth. Having fewer than 20 teeth compromises masticatory function and nutritional status...



Radar 10