

TOOTH COLOURED RESTORATIONS

When a tooth is decayed or fractured the damaged tooth structure needs to be replaced. In the past the most common material for this treatment in back teeth was dental amalgam alloy (silver fillings). This material however has poor cosmetic appearance and a tendency to expand slightly over time. This expansion can cause adjacent tooth structure to crack or split, causing further problems in the future.

In the 1960's dental composite resins (white fillings) were introduced. Initially they were confined to the front teeth because they were not strong enough to withstand the pressure and wear generated by back teeth. Since then composite resins have been significantly improved and can be used in most areas of the mouth.

The technique to place these restorations is far more demanding than with the older materials and this is reflected in both longer appointment times and higher fees.

MATERIALS AND TECHNIQUES

Composite resins (more commonly referred to as composites) are made up of microscopic glass and porcelain particles of varying shapes and sizes, which are held together by a matrix of acrylic or plastic material.

During placement a composite must be kept dry more carefully than other materials because moisture, even the humidity, can affect the quality of the final result. To help achieve this, in this practice we often use a protective covering sheet called a rubber dam to isolate the teeth.

The composite must be bonded to the tooth in several critical steps; the challenge is a little like trying to glue to wet wood. The older amalgam fillings were just crammed into place and allowed to corrode to fill up the gaps rather than actually being glued to the tooth.

Composite must be placed in multiple small increments to avoid shrinkage. A bright curing light accelerates the set of each increment. This results in a more colour stable restoration than the earlier generation of composites.

Finally after all the layers of composite resin material are in place, they must be shaped, the bite adjusted and then the restoration polished between the teeth and on every surface.

WHAT ARE THE ADVANTAGES?

Composite restorations can have excellent cosmetics since we can blend shades to create a colour nearly identical to that of the actual tooth.

Teeth filled with composite material tend to be stronger, as it bonds to the surrounding tooth, while a tooth filled with amalgam may sometimes be weaker.

Composite restorations can be fitted into very small holes, so less drilling is needed in preparation for the restoration.

These types of restorations can help insulate the tooth from major temperature changes.

WHAT ARE THE DISADVANTAGES?

Composite restorations take longer to place as the technique is more complex.

Composites are more expensive than amalgam fillings, especially in posterior teeth.

Composites tend to wear out sooner than amalgams in larger cavities, although they hold up well in small cavities.

A tooth filled with composite material may be sensitive for a time after the procedure.

The shade of the composite can change slightly if the patient drinks tea, coffee or other staining foods.

HOW LONG WILL A COMPOSITE LAST?

Studies have shown that a well placed composite lasts between 8 and 12 years.

Dr Jeremy Keating

11 Kings Road, Subiaco WA 6008

Phone 9388 1557

