The dental drill is a tool used by dentists to bore through tooth enamel as well as to clean and remove plaque from the tooth's surface. Tooth decay, which damages the enamel, is caused by various oral bacteria. This allows still other types of bacteria to enter these holes and crevice and erode the softer tissue below. Untreated, cavities can result in diseases such as dental caries and abscesses. With the plaque gone from the teeth, the enamel- damaging bacteria have nowhere to reside and cannot cause cavities. One of these was the 1778 introduction of a near-mechanical drill, which was powered by a hand crank that activated a rotating gear. These drills were over 100 times faster than their predecessors and significantly reduced the pain associated with tooth drilling. Although individual drills can vary in design, they all include a motor, hand piece, couplings, and a drill bit, or bur. It is composed primarily of a hand piece, an air turbine, and a tungsten carbide drill bit. The soft tissue inner layer, called the dentin, is similar in composition to skeletal bones. Enamel, the outer layer of teeth, is highly calcified and harder than bone and cannot be regenerated by the body. Other bacteria attach themselves to this plaque and begin secreting an acid which causes small holes to form in the tooth enamel. Beyond the initial holes, the outer enamel is left primarily intact. To prevent these diseases, dentists use a dental drill or other tools to remove the plaque from a cavity. 109 The earliest examples of dental drills were developed by the Mayans over 1,000 years ago. The Mayans used this tool primarily in conjunction with a religious ritual for putting jewels in the teeth. In the mid-1600s, doctors discovered that temporary relief from dental diseases could be achieved by filling the natural holes in teeth with various substances. Drill technology steadily improved over time, resulting in faster and more efficient drills. Electrically powered drills soon followed, and the time it took to prepare a cavity was decreased from hours to less than 10 minutes. The modern dental drill has enabled dentists to work more quickly and accurately than ever .before, with less pain for the patient

lakhasly.com © تم تلخيص النص بواسطة موقع لخصلي