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Preparation and problem solving in indirect esthetic restorations

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Increased demand for esthetic restorations has promoted a growing interest in tooth-colored restorations even in the posterior regions. Preparation for specific types of indirect inlay and onlays may vary because of differences in fabrication steps for each commercial system and variations in the physical properties of the restorative materials. Preparations for indirect inlay/onlay basically are meant to provide adequate thickness for restorative material and at the same time a passive insertion pattern with rounded internal angles and well defined margins after deciding what type of restoration is indicated. If there are some sharp line angles, the stress will be concentrated in the restoration and tooth, thereby increasing the potential for fractures. All margins should have a 90(butt-joint cavosurface angle to ensure marginal strength of restoration. The most common cause of failure of tooth-colored restoration is bulk fracture. If bulk fracture occurs, replacement of the restoration is almost always indicated. And the dentist should attempt to identify the cause of the problem and correct it if possible. But minor defects can be repaired with relative ease. The other possible problem after cementation is the tooth hypersensitivity. Most of postoperative sensitivity is occurred immediately in few days or 2 weeks, which is mainly arisen from the failure of bonding and cementing procedures. Improvements in adhesive technology have results in the development of a variety of tooth-colored indirect restorations. These offer an excellent alternative to direct composite restorations, especially for large restorations, and are more conservative than full-coverage restorations. However, because the clinical procedures are relatively technique-sensitive, proper case selection, operator skill, and attention to detail are critical to success.