

Comparison of All-Porcelain vs. Porcelain Fused to Metal Crowns

	All-Porcelain	Porcelain Fused to Metal	All-Metal
<u>General Description</u>	Porcelain, ceramic or glass-like fillings and crowns	Porcelain is fused to an underlying metal structure to provide strength to a crown or bridge	Gold, copper, and other high-noble metals result in strong, effective crowns and bridges
<u>Principal Uses</u>	Inlays, onlays, crowns and aesthetic veneers	Crowns and fixed bridges	Inlays, onlays, crowns, and bridges
<u>Durability</u>	May fracture under heavy biting loads	Very strong and durable	High corrosion resistance prevents tarnishing; high strength resists fracture and wear
<u>Preparation Consideration</u>	Strength depends on adequate porcelain thickness; it requires moderate tooth reduction during preparation	Including both porcelain and metal creates a stronger restoration than porcelain alone; moderately aggressive tooth reduction is required	High strength of metal requires the least amount of healthy tooth structure removal
<u>Resistance to Wear</u>	Highly resistant to wear, but porcelain can rapidly wear opposing teeth if its surface becomes rough	Highly resistant to wear, but porcelain can rapidly wear opposing teeth if its surface becomes rough	Resistant to wear and gentle to opposing teeth.
<u>Resistance to Fracture</u>	Prone to fracture when placed under tension or on impact	Porcelain is prone to impact fracture; the metal has high strength	Highly resistant to fracture
<u>Biocompatibility</u>	Well tolerated	Well tolerated, but some patients may show allergic sensitivity to base metals	Well tolerated
<u>Post-Placement Sensitivity</u>	Low thermal conductivity reduces the likelihood of discomfort from hot and cold	High thermal conductivity may result in early post-placement discomfort from hot and cold	High thermal conductivity may result in early post-placement discomfort from hot and cold
<u>Esthetics</u>	Color and translucency mimic natural tooth appearance	Porcelain can mimic natural tooth appearance, but metal limits translucency.	Metal colors do not mimic natural teeth
<u>Relative Cost/Visits</u>	10% higher; requires at least two office visits and laboratory services	Requires at least two office visits and laboratory services	Priced same as PFM and requires the same amount of procedure time