

## Cerrahide Üç Boyutlu Yazıcıların (3D Print) Yeri

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### GİRİŞ

Üç boyutlu baskı teknolojisi, cerrahlar tarafından etkileyici bir oranda ve çok çeşitli uygulamalarda benimsenmiştir. İnsan anatomisinin ameliyat edilebilen hemen hemen her parçasının basılmış bir 3D modeli vardır. Dahası, cerrahlar hastaya özgü anatomik modelleri basmanın ötesine geçerek implantlar, protezler, harici fiksatörler, splintler, cerrahi aletler ve cerrahi kesme kılavuzları gibi hastaya özgü tıbbi donanımları basmaya başladılar.

3D baskı teknolojisi, ameliyat öncesi planlama için alternatif bir araç olarak cerrahi disiplinlerde yerini almış olsa da, hala rutin olarak kullanılmamaktadır. Çoğu 3D modeller düşük maliyetli olması ve modellerin basit yapısından dolayı maksillofasiyal ve ortopedik cerrahide kullanılmak üzere tasarlanmışlardır (1). Bununla birlikte 3D modellerin kullanımı genel cerrahi ve gastrointestinal cerrahide de faydalı olması beklenmektedir. Anatomik yapıların yüksek doğrulukta görselleştirilmesi gereken ameliyatlarda, ameliyat öncesi yapılan 3D baskılar standart görüntüleme yöntemleriyle karşılaştırıldığında anatomik yapıların detaylarını ve birbirleriyle ilişkileri konusunda daha detaylı bilgiler verebilmektedir. 3D yazıcıların cerrahide kullanımlarının potansiyel avantajları arasında operasyon süresinin daha kısa olması, iyileşme süresinin daha hızlı olması, cerrahide

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