





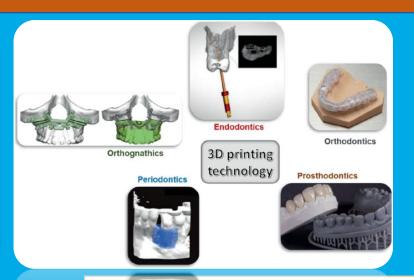
4D DENTISTRY:A BEACON INTO FUTURE DENTISTRY

4D Printing is a Technology that uses 3D printers that create objects that can change shape or properties over time in response to external stimuli

- ☐Stimulation software
- ❖ Autodesc, CATIA, Open source
- ☐ Multimaterial printer
- Stratasys, ROVA, Solidview, Geomagic
- ☐Smart materials
- ❖ Shape memory alloys, self healing materials

Principles of 4D printing

Dynamic material
Responsive design
Material response
mechanism
Temporal dimension
Precision control



Compound + polymers



Filament 2

FDM-based 3D printing



