

## 3D Printing – Revolutionising the Management in Orthopaedics

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It has been one year since the launch of Journal of Orthopaedic Surgery and Traumatology (ORTR). There have been many articles published about the recent advances in the field of orthopaedics. Journal has grown up in its content and has been inviting many authors to submit articles. Being one of the editorial board members makes oneself proud as the journal develops leaps and bounds.

Well the recent change in the technology and the innovations in the field have made the surgeons use more diagnostic tools for management of orthopaedic disorders. One such is this 3D printing. As name says, it is the 3 dimensional image of the diseased portion which helps surgeon plan before he actually performs surgery. It's a cutting edge technology with use of 3D printing technology, giving the surgeon a realistic anatomical model upon which he or she will operate.

Another possible application is in operations requiring reconstruction of large bone defects. A “negative” mold of the required implant would enable the surgeon to shape the implant to the proper dimensions for optimal fit even before the surgery is performed. Three-dimensional printed biologic and bone-like implants may be used to optimize restoration of original structure and function. [1]

Should 3D printer technology advance to the point that 3D printer use is widely accepted in a sterile hospital environment, one potential use of readily available 3D printers could be the on-demand manufacturing of customized surgical instruments that would otherwise be unavailable due to prohibitive costs or rare use. [2]

Within the orthopaedic and traumatology field, 3DP also enables advance testing of the surgical procedure; this possibility can lead to a better intervention outcome and a reduction of operation time. 3D-printed models can be a useful tool for the teaching and training of novice surgeons, improving the quality of training and the learning curve. [3]

At present the cost is still high to regularly use this 3DP technology in few countries, but it's gradually coming down and it will be one such that it will become one like a regular radiograph investigation in coming future. In joint reconstruction it's playing a pivotal role for surgeon to have a lot of back up plans and implants before starting operation. In bone tumors management it will help in custom designed implantation based on the destroyed normal tissue to be replaced by implant. Let's welcome this new technology and always the surgeons skills, decision making are of prime importance.

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Lastly the journal is progressing quite well. Wishing the team to take this opportunity and develop well. Hope to get more recognition with indexing bodies and increased number citations, to have good impact factor.

### References

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