The Ultimate 3D Printing Guide for Doctors
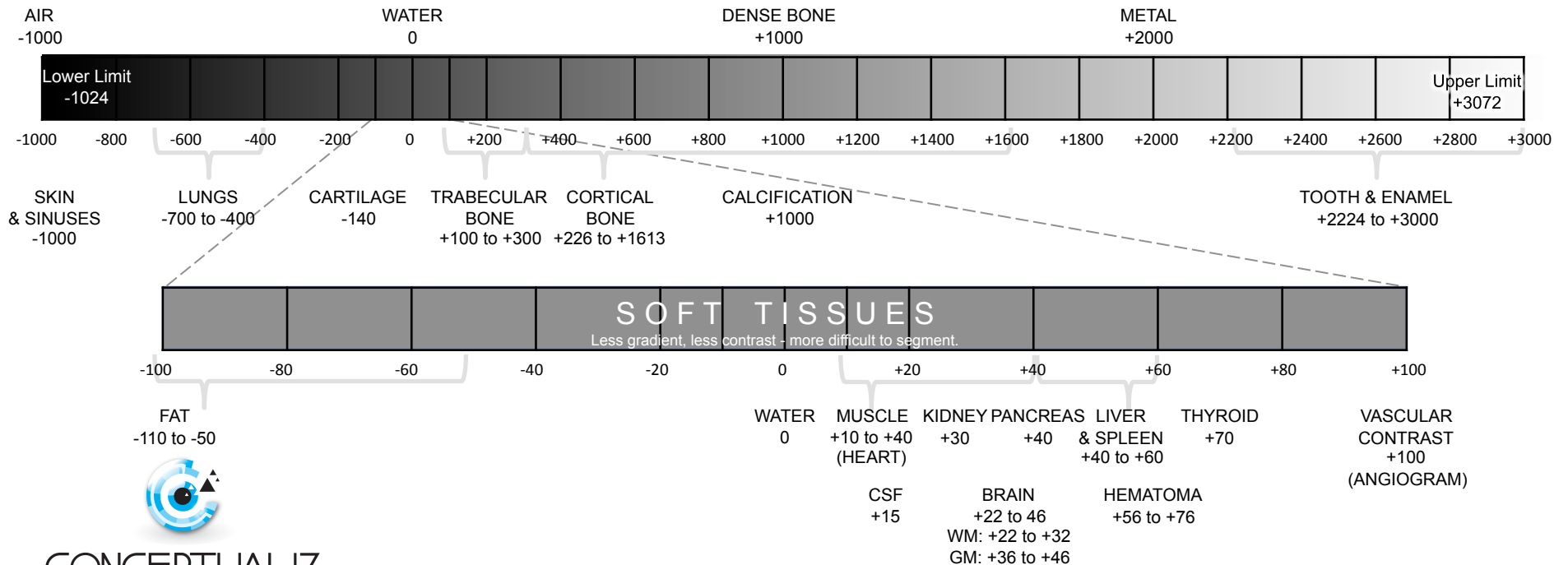## Tissue Segmentation Threshold Values
For use with the OSSA 3D app: Simplified 3D Printing Software for Doctors.

Steps in creation of 3D models:

1. Segment the data to obtain only the object of interest: standard predefined segmentation threshold ranges based on the Hounsfield Unit (HU) Scale for Computerized Tomography (CT) are provided for various tissue types in this chart. OSSA 3D automates reading of CT images in DICOM format and then automatically performs segmentation once the desired tissue threshold value is selected using a single minimum threshold level. Recommended: use standard soft tissue windows at 1mm slice thickness for best results.

2. Convert the segmented data into a 3D model: OSSA 3D also automates this step.

3. Export the model into STL format for 3D Printing: OSSA 3D also automates this step and provides intuitive user-friendly selection tools to help clean up and create clinically relevant anatomical models.

For more information go to http://www.conceptualiz.com/Support.html

AIR -1000		WATER 0		DENSE BONE +1000		METAL +2000	

Lower Limit -1024   Upper Limit +3072

-1000 | -800 | -600 | -400 | -200 | 0 | +200 | +400 | +600 | +800 | +1000 | +1200 | +1400 | +1600 | +1800 | +2000 | +2200 | +2400 | +2600 | +2800 | +3000

SKIN & SINUSES -1000

LUNGS -700 to -400

CARTILAGE -140

TRABECULAR BONE +100 to +300

CORTICAL BONE +226 to +1613

CALCIFICATION +1000

TOOTH & ENAMEL +2224 to +3000

SOFT TISSUES
Less gradient, less contrast - more difficult to segment.

-100 | -80 | -60 | -40 | -20 | 0 | +20 | +40 | +60 | +80 | +100

FAT -110 to -50

WATER 0

MUSCLE +10 to +40 (HEART)

KIDNEY +30

PANCREAS +40

LIVER & SPLEEN +40 to +60

THYROID +70

VASCULAR CONTRAST +100 (ANGIOGRAM)

CSF +15

BRAIN +22 to 46
WM: +22 to +32
GM: +36 to +46

HEMATOMA +56 to +76

CONCEPTUALIZ
Making 3D Printing More Accessible To Doctors