

## Normal Tissue Contouring

**Table 1 – Organs at Risk**

Table 1 contains two designations for anatomic sites in the EBRT setting:

- *Recommended* = tissues for contouring in all definitive cases of EBRT
- *Consider* = tissues that may require contouring, depending on patient-specific variables (anatomical location of target(s), inclusion of elective nodal regions, or special contexts such as reirradiation, palliative intent, pediatric radiation, or stereotactic radiation therapy).

Standard treatment techniques and patient positions were assumed.

The naming convention for tissue labels in this table align with *American Association of Physicists in Medicine Task Group 263: Standardizing Nomenclatures in Radiation Oncology*

Central Nervous System		
Treated Organ	Recommended	Consider
<b><i>Brain</i></b>	Brain Brainstem Eye_L/R Lens_L/R OpticChiasm OpticNrv_L/R SpinalCord	A_Carotid Cochlea Gnd_Lacrimal Hippocampus_L/R Pituitary Scalp
<b><i>Spine - Cervical</i></b>	Brainstem Esophagus SpinalCord	Bone_Mandible BrachialPlex_L/R Cavity_Oral Gnd_Submandibular Gnd_Thyroid Larynx Oropharynx Parotids Trachea
<b><i>Spine - Thoracic</i></b>	Esophagus Heart Lungs SpinalCord	Bowel_Large Bowel_Small Kidneys Liver Stomach
<b><i>Spine - Lumbar</i></b>	CaudaEquina Kidneys SpinalCord	Bowel_Small Bowel_Large Liver Stomach
<b><i>Spine - Sacral</i></b>	CaudaEquina	Bladder Bowel_Large Bowel_Small Colon_Sigmoid Genitals Ovary Rectum SacralPlex Testis_L/R

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<b><i>Craniospinal</i></b>	Brain Brainstem Cochlea Esophagus Eye_L/R Heart Kidneys Lens_L/R Lungs OpticChiasm OpticNrv_L/R Pituitary SpinalCord	Bladder Bowel_Large Bowel_Small Breasts Genitals Gnd_Thyroid Liver Ovary Rectum Stomach Testis_L/R
<b>Head and Neck</b>		
<b>Treated Organ</b>	<b>Recommended</b>	<b>Consider</b>
<b><i>Face, Parotid</i></b>	Bone_Mandible Brainstem Eye_L/R Lens_L/R Lips Parotid_L/R SpinalCord	Cavity_Oral Cochlea Gnd_Lacrimal_L/R Gnd_Submand_L/R Joint_TM_L/R Lobe_Temporal_L/R
<b><i>Orbit</i></b>	Brain Brainstem Eye_L/R Gnd_Lacrimal_L/R Lens_L/R OpticNrv_L/R OpticChiasm	Cochlea_L/R Lobe_Temporal_L/R Parotid_L/R Pituitary Retina
<b><i>Sinonasal</i></b>	Brain Brainstem Cochlea Eye_L/R Lens_L/R Optic_Nrv_L/R OpticChiasm Parotid_L/R SpinalCord	Bone_Mandible Cavity_Oral Gnd_Lacrimal_L/R Gnd_Submand_L/R Lobe_Temporal_L/R Pituitary
<b><i>Nasopharynx</i></b>	Bone_Mandible BrachialPlex_L/R Brain Brainstem Cavity_Oral Cochlea_L/R Esophagus Eye_L/R Gnd_Submand_L/R Larynx Lens_L/R Lobe_Temporal_L/R OpticNrv_L/R OpticChiasm	Gnd_Thyroid Lips Musc_Constrict Pituitary

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	Parotid_L/R SpinalCord	
<b>Oropharynx</b>	Bone_Mandible Brainstem Cavity_Oral Esophagus GlnD_Submand_L/R Larynx Lips Parotid_L/R SpinalCord	BrachialPlex_L/R Cochlea_L/R Eye_L/R GlnD_Thyroid Lens_L/R Musc_Constrict OpticNrv_L/R OpticChiasm
<b>Larynx (except early stage*), Hypopharynx, Thyroid or Cervical Esophagus</b>	Bone_Mandible BrachialPlex_L/R Brainstem Cavity_Oral GlnD_Submand_L/R Parotid_L/R *SpinalCord	Esophagus GlnD_Thyroid Heart Lips Lungs Musc_Constrict
<b>Elective or Definitive Neck</b>	Bone_Mandible Brainstem Cavity_Oral GlnD_Submand_L/R Parotid_L/R SpinalCord	BrachialPlex_L/R Cochlea_L/R Esophagus GlnD_Thyroid Larynx Lips Musc_Constrict
<b>Thoracic</b>		
<b>Treated Organ</b>	<b>Recommended</b>	<b>Consider</b>
<b>Breast/Chestwall</b>	Heart Lung_L/R	A_LAD BrachialPlex_L/R Breast_contralateral Lungs Ribs Ventricle_L
<b>Supraclavicular Fossa</b>	Lung_L/R SpinalCord	BrachialPlex_L/R Esophagus GlnD_Thyroid Lungs
<b>Axilla</b>	Heart Lung_L/R SpinalCord	BrachialPlex_L/R Esophagus GlnD_Thyroid Lungs
<b>Lung</b>	Esophagus Heart Lung_L/R Lungs SpinalCord	A_LAD BrachialPlex_L/R Bronchus_L/R Bronchus_Main Chestwall_L/R GreatVes Liver Stomach Trachea

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<b>Mediastinum/Thymus</b>	Esophagus Heart Lungs SpinalCord	A_LAD Bronchus_Main Trachea
<b>Esophagus</b>	Esophagus Heart Lungs SpinalCord Stomach	Kidneys Larynx Liver
<b>Abdominal</b>		
<b>Treated Organ</b>	<b>Recommended</b>	<b>Consider</b>
<b>Lower Esophagus/ Gastroesophageal Junction</b>	Bowel_Small Esophagus Heart Kidney_L/R Kidneys Liver Lungs SpinalCord Stomach	Bowel_Large
<b>Spleen</b>	Heart Kidney_L Lung_L SpinalCord Stomach	Bowel_Large Bowel_Small
<b>Stomach</b>	Bowel_Small Esophagus Heart Kidney_L/R Kidneys Liver Lungs SpinalCord	Bowel_Large
<b>Pancreas</b>	Bowel_Small Duodenum Kidney_L/R Kidneys Liver SpinalCord Stomach	A_Aorta Bowel_Large V_Venacava_I
<b>Liver</b>	Bowel_Large Bowel_Small Duodenum Kidney_L/R Liver SpinalCord	BileDuct_Common Chestwall Esophagus GallBladder Heart Kidneys Lungs Stomach V_Venacava_I

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<b>Renal/Adrenal</b>	Bowel_Large Bowel_Small CaudaEquina Kidney_L/R SpinalCord	Liver (Rt) Spleen (Lt) Stomach (Lt)
<b>Retroperitoneal Space</b>	Bowel_Large Bowel_Small Kidney_L/R Kidneys Liver SpinalCord	Stomach
<b>Paraaortic</b>	Bowel_Small Kidney_L/R Kidneys SpinalCord	Bowel_Large CaudaEquina Duodenum Liver Stomach
<b>Pelvic</b>		
<b>Treated Organ</b>	<b>Recommended</b>	<b>Consider</b>
<b>Bladder</b>	Bowel_Small Colon_Sigmoid Femur_Head_L/R Rectum	Bladder BoneMarrow Bowel_Large Prostate
<b>Cervix/Uterus/Vagina /Vulva</b>	Bladder Bowel_Small Colon_Sigmoid Femur_Head_L/R Rectum	BoneMarrow Bowel_Large Kidneys Ovaries
<b>Prostate</b>	Bladder Femur_Head_L/R PenileBulb Rectum	Bowel_Large Bowel_Small Colon_Sigmoid
<b>Rectum</b>	Bladder Bowel_Small Femur_Head_L/R	BoneMarrow Bowel_Large Genitals Vagina
<b>Anus</b>	Bladder Bowel_Small Femur_Head_L/R Rectum	BoneMarrow Bowel_Large Genitals Vagina
<b>Extremities</b>		
<b>All extremities</b>	Skin	BoneMarrow