

Pancreas-CT

Summary




The National Institutes of Health Clinical Center performed 82 abdominal contrast enhanced 3D CT scans (~70 seconds after intravenous contrast injection in portal-venous) from 53 male and 27 female subjects. Seventeen of the subjects are healthy kidney donors scanned prior to nephrectomy. The remaining 65 patients were selected by a radiologist from patients who neither had major abdominal pathologies nor pancreatic cancer lesions. Subjects' ages range from 18 to 76 years with a mean age of 46.8 ± 16.7 . The CT scans have resolutions of 512x512 pixels with varying pixel sizes and slice thickness between 1.5 2.5 mm, acquired on Philips and Siemens MDCT scanners (120 kVp tube voltage).

A medical student manually performed slice-by-slice segmentations of the pancreas as ground-truth and these were verified/modified by an experienced radiologist.

Data Access

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Click the **Download** button to save a ".tcia" manifest file to your computer, which you must open with the [NBIA Data Retriever](#) . Click the **Search** button to open our Data Portal, where you can browse the data collection and/or download a subset of its contents.

Data Type	Download all or Query/Filter
Images (DICOM, 9.3 GB)	  (Requires the NBIA Data Retriever .)
Manual Annotations	

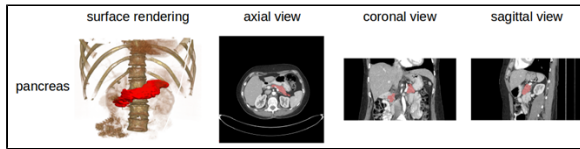
Click the Versions tab for more info about data releases.

Detailed Description

Detailed Description

Collection Statistics	
Modalities	CT
Number of Participants	80
Number of Studies	80
Number of Series	80
Number of Images	18,942
Image Size (GB)	9.3

Data Example



Note

The DICOM files were created from anonymized volumetric images (Analyze and Nifti) using this from ITK: http://www.itk.org/Doxygen/html/Examples_2IO_2ImageReadDicomSeriesWrite_8cxx-example.html.

Citations & Data Usage Policy

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Users of this data must abide by the [TCIA Data Usage Policy](#) and the [Creative Commons Attribution 3.0 Unported License](#) under which it has been published. Attribution should include references to the following citations:

i Data Citation

Holger R. Roth, Amal Farag, Evrim B. Turkbey, Le Lu, Jiamin Liu, and Ronald M. Summers. (2016). Data From Pancreas-CT. The Cancer Imaging Archive. <https://doi.org/10.7937/K9/TCIA.2016.tNB1kqBU>

i Publication Citation

Roth HR, Lu L, Farag A, Shin H-C, Liu J, Turkbey EB, Summers RM. **DeepOrgan: Multi-level Deep Convolutional Networks for Automated Pancreas Segmentation**. N. Navab et al. (Eds.): MICCAI 2015, Part I, LNCS 9349, pp. 556–564, 2015. ([paper](#))

i TCIA Citation




Clark K, Vendt B, Smith K, Freymann J, Kirby J, Koppel P, Moore S, Phillips S, Maffitt D, Pringle M, Tarbox L, Prior F. **The Cancer Imaging Archive (TCIA): Maintaining and Operating a Public Information Repository**, Journal of Digital Imaging, Volume 26, Number 6, December, 2013, pp 1045-1057. DOI: <https://doi.org/10.1007/s10278-013-9622-7>

Other Publications Using This Data

If you have a publication you'd like to add, please [contact the TCIA Helpdesk](#).

Versions

Version 2 (Current): Updated 2020/09/10

Data Type	Download all or Query/Filter
Images (DICOM, 9.3 GB)	  (Requires the NBIA Data Retriever .)
Manual Annotations	

Note: Previously posted cases #25 and #70 were found to be from the same scan as case #2, just cropped slightly differently, and were removed from this version of the dataset.

Version 1 : Updated 2015/12/29

Data Type	Download all or Query/Filter
Images (DICOM, 10.2 GB)	not available, see version 2
Manual Annotations	