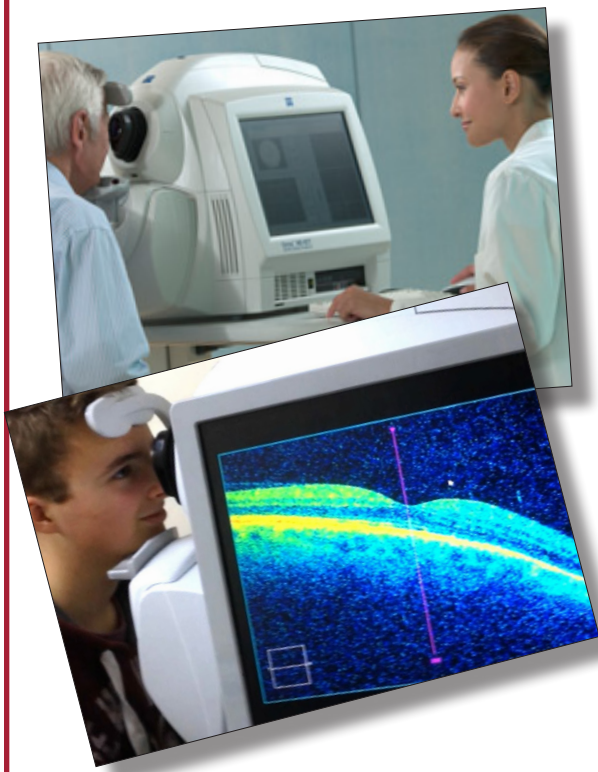


Optical Coherence Tomography (OCT): Health, savings and jobs from basic research

OCT preserves sight

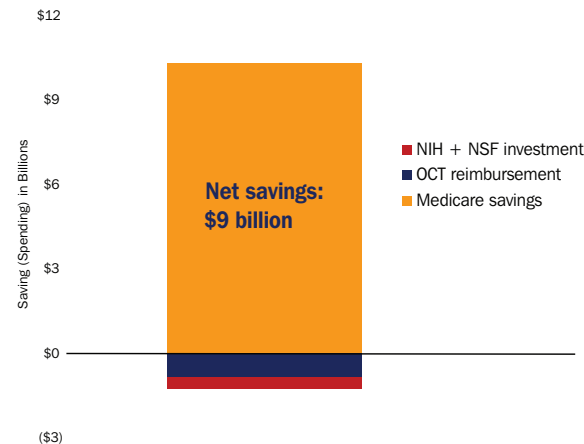
- Fast, accurate, no dilation required
- Detects age-related macular degeneration (AMD), glaucoma and diabetic eye diseases



OCT cuts healthcare spending

- OCT saved Medicare \$9 billion since 2008
- Savings is 21 times the investment made by National Institutes of Health and National Science Foundation over 20 years

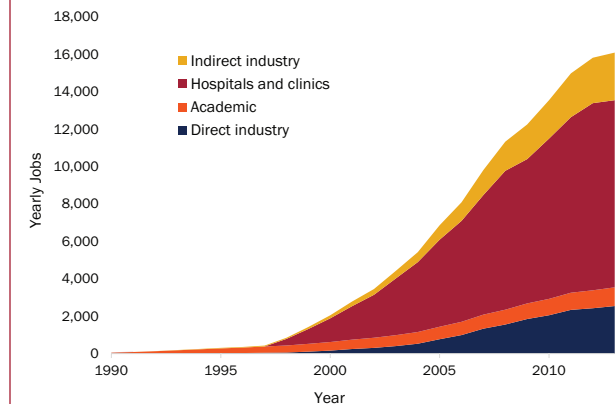
Government Investment in OCT vs. Medicare Savings



OCT supports jobs

- 16,000 plus high-paying jobs in OCT industry
- OCT sales reached approximately \$750 million in 2015

OCT-supported jobs by sector





The Association for Research in Vision and Ophthalmology
1801 Rockville Pike, Suite 400
Rockville, Md. 20852
Tel: +1.240.221.2900 | arvo.org

Vision research: An under-valued investment

Sight-saving research, primarily funded through the **National Eye Institute** (NEI) of the National Institutes of Health (NIH), is responsible for numerous therapies that help prevent people from losing vision. From investigating effective surgical procedures to understanding the biology behind diseases on which new drugs are based, NEI-sponsored research has helped Americans see better for longer in life.

One of the biggest success stories coming out of NEI research is an imaging technology called **optical coherence tomography (OCT)**. Found in almost every eye clinic in the developed world, OCT allows doctors to image the back of a patient's eye (known as the retina) quickly and without dilation. Stories from patients, doctors and researchers about how OCT has impacted their lives and work can be found at arvo.org/OCT.

The technology's impact on patients and government budgets is significant:

- OCT is the primary tool used to **detect common vision-stealing conditions**, including the following:
 - Glaucoma
 - Age-related Macular Degeneration (AMD)
 - Diabetic eye disease
 - Premature-baby eye disease
- OCT is able to detect diseases even **before patients notice vision loss**, preserving vision and independence while lowering health care costs

- Used to guide treatment of AMD with anti-vascular endothelial growth factor (anti-VEGF) agents, OCT has **saved Medicare** \$9 billion dollars from 2008 – 2015 by helping patients avoid 17.7 million unnecessary injections of the expensive drugs
- The **commercial market** for OCT instruments has grown to approximately \$750 million annually, supporting more than 16,000 high-paying jobs
- OCT is now being applied to **diagnosing neurological conditions**, including:
 - Alzheimer's
 - Parkinson'sOCT provides a method to detect these conditions before cognitive and physical symptoms develop.

Yet the NEI budget of \$733 million in fiscal year 2017 is modest compared to the estimated \$69 billion annual direct medical cost of vision disorders in the U.S. — the fifth most expensive of all medical conditions. Additional investment in vision research will lead to breakthroughs that improve vision for patients and reduce costs for government healthcare programs.

Help vision researchers restore sight. Increase funding for vision research.

arvo.org/OCT