

# TELEMEDICINE SPECIALIZED CARE DIRECTORY

## *Prostate Cancer Edition*



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# About the Prostate Cancer TelemEDucation Empowerment Resource Center



The **TelemEDucation Empowerment Resource Center** works to significantly improve prostate cancer patients' and caregivers' familiarity with remote access to healthcare, and thus increase quality of care regardless of geographical location.

This one-of-a-kind resource center is intended to educate the prostate cancer community on the practical usage of telemedicine tools to humanize patient and provider experiences.

Noticeably, telemedicine options of virtual visits with healthcare providers, access to patient portals, and virtual translation services have resulted in improved patient care. Patients who were previously too far away or could not get enough time off from work for in-person visits can now have virtual visits, and patients who have limited English language proficiency can now easily take advantage of translation services – all leading formerly underserved patients to better care.

Now that telemedicine has broader application, we now shift to how and why to keep telemedicine in your toolbox post-COVID. We also explore the digital health landscape and mobile-optimized tools for connecting to specialized cancer care.

*"Telemedicine, in general, is one of the silver linings of COVID... I do think for patients who have access to an Internet or a smartphone and are able to do their visits, it is really decreasing the burden on them."*

*-Heather Cheng, MD, PhD*





# Utilizing Your Prostate Cancer TelemedicineToolbox

## **Are Mobile-Optimized Tools Making an Impact in Prostate Cancer?**

**Expert:** Heather Cheng, MD, PhD



## **Why Is Specialized Care Important in Prostate Cancer?**

**Expert:** Heather Cheng, MD, PhD



## **Can Prostate Cancer Patients Rely on Telemedicine Without Risk?**

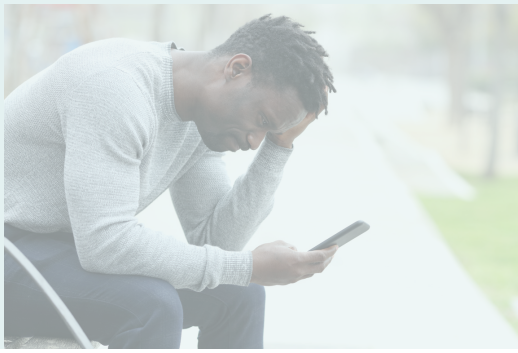
**Expert:** Heather Cheng, MD, PhD



## **Telemonitoring and How It Benefits Prostate Cancer Patients**

**Expert:** Heather Cheng, MD, PhD





# Utilizing Your Prostate Cancer Telemedicine Toolbox

## How Can We Improve Remote Access for Prostate Cancer Patients?

**Expert:** Heather Cheng, MD, PhD



## Should Prostate Cancer Patients and Families Keep Using Telemedicine?

**Expert:** Heather Cheng, MD, PhD



## Prostate Cancer Treatment Tools and Advancements

**Expert:** Heather Cheng, MD, PhD



## What Prostate Cancer Populations Will Benefit Most From Telemedicine?

**Expert:** Leanne Burnham, PhD





# Connecting to Specialized Care

Where possible, select a physician who specializes not just in cancer but in the nuances of your specific type of prostate cancer. How do you find such a doctor? If you are newly diagnosed, start by consulting your diagnosing doctor, that is, the one who found your prostate cancer. They may be an expert in the field, or they may refer you to one or more doctors who are. Some questions to ask:



- Are they covered by your health insurance?
- Are they affiliated with a university or research hospital?
- Does their “bedside manner” align with your personality? Are they analytical? Compassionate?
- Do they seem interested in making you a partner in this process? Do they seem interested in what is important to you?



- Take your time
- Don't be afraid to shop around and get second or even third opinions.
- Be careful of random advice, e.g., “surgery is the best” or “radiation is the best” or “eat this herb, and your cancer will be cured.”
- For accurate information, use data on reputable websites and those that your doctor recommends.
- After you have committed, trust is key, but continue to be your own advocate: ask questions, do research, and remain curious.

Source: Prostate Cancer Foundation

# Resources to Find and Evaluate Doctors

## **Administrators in Medicine DocFinder**

Information on licensing and disciplinary actions taken against doctors in 18 states; links to state medical boards of remaining states.

## **American Board of Medical Specialties (ABMS)**

Includes a database to find doctors who are ABMS Member Board Certified Specialists, a designation achieved through additional training and education.

## **American College of Surgeons**

Information about finding surgeons who are board-certified as well as information about surgical specialties. Includes database of member surgeons.

## **American Medical Association DoctorFinder**

Education, board certification, and hospital admitting privileges for doctors who belong to the AMA.

## **American Society for Radiation Oncology (ASTRO) RT Answers**

Includes searchable database of radiation oncologists.

## **American Society of Clinical Oncology (ASCO) Cancer.Net**

Oncologist-approved cancer information from the American Society of Clinical Oncology (ASCO) can be found on the site Cancer.Net. This site includes a “Find an Oncologist” tool with tips on choosing a doctor and a database of oncologists.

## **Urology Care Foundation**

Searchable database of member urologists all of whom have been certified by the American Board of Urology.

## **Medicare Physician and Other Healthcare Professional Directory**

Provider profiles including specialties, practicing locations, and phone numbers. Other information may also include education, gender, residency, foreign languages spoken, and hospital affiliation.

## **Society of Urologic Oncology (SUO)**

The purpose of the SUO is to develop educational and research initiatives and to study issues in urologic oncology and provide physician statements that represent a state of the art assessment of these issues to other organizations. Site includes a database of members.

**Source:** Prostate Cancer Foundation

# Prostate Cancer Tools

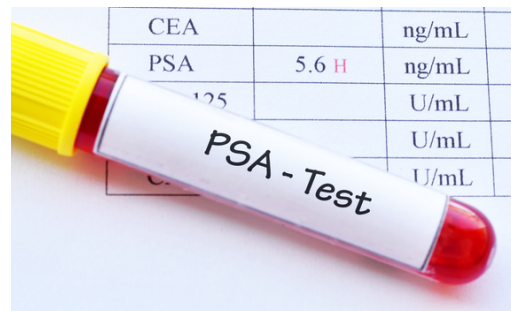
Mobile-optimized tools were expedited after onset of the COVID-19 pandemic. There are now mobile apps specifically for prostate cancer patients, and websites and patient portals have been optimized for use on mobile devices.



Mobile-optimized tools translate to improved viewing and consumption of prostate cancer resources, which results in better patient care. Patients who formerly had poor experiences with mobile versions of patient portals can now easily use them as another tool for their prostate cancer care.

In addition, some healthcare providers now have access to handheld mobile tools to assist them with updating patient records and collecting samples, which increase efficiency of patient care.

Mobile PSAs, another telemedicine approach has become especially important during the pandemic and the increasing unfavorable imbalance between demand. Closely studied, the mobile PSA has shown to significantly reduce delays in reporting prostate-specific antigen (PSA) test results to patients and in reducing medical costs.

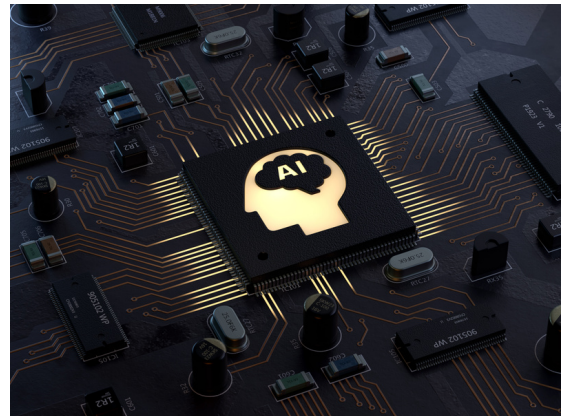


With technology advancements continuing, mobile-optimized tools will be used by more healthcare providers. And with increased use will come improved efficiency that results in more time spent with patients for better prostate cancer health outcomes.

# Artificial Intelligence & Prostate Cancer

## What Is Artificial Intelligence?

Artificial intelligence (AI) involves a variety of technology types. Prostate cancer AI involves technology tools that assist in the diagnosis and grading of prostate cancer. A recent clinical study used a scanner to convert slide images of prostate biopsies into a digitized form for evaluation by AI.



## What AI Means for Prostate Cancer Care

A recent clinical study called the PANDA challenge looked at the results of a large group of AI-generated Gleason gradings from digitized prostate biopsies from the U.S. and European samples.

The study concluded that the AI-generated gradings met a detection level that laboratory scientists are able to meet along with a high level of speed in generating results. This is an exciting development in prostate cancer.

The use of this prostate cancer AI can improve accuracy by eliminating missed or inaccurate diagnoses that some lab scientists might categorize differently and help decrease time to diagnosis.

By eliminating some of the variation in prostate cancer gradings, this can then translate into more accurate prostate cancer diagnosis and treatment. This technology has been approved by the FDA in the U.S., and improvements will ultimately result in better quality of life and health outcomes for patients.

### Sources

<https://www.nature.com/articles/s41591-021-01620-2>

<https://www.sciencedaily.com/releases/2022/01/220113111518.htm>

<https://www.fda.gov/news-events/press-announcements/fda-authorizes-software-can-help-identify-prostate-cancer>

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2785792>



# What Are Telegenetic Consultations in Prostate Cancer?

Telegenetic consultations can be carried out with genetic counselors via telemedicine.

With the rise of genetic mutations playing a factor in cancer care and treatment decisions, it's a natural development for telegenetic consultations to emerge as another option in the telemedicine toolkit that protects patients from exposure to viruses and potential infections and saves them valuable time, energy, and travel costs.



## What Telegenetic Consultations Mean for Prostate Cancer

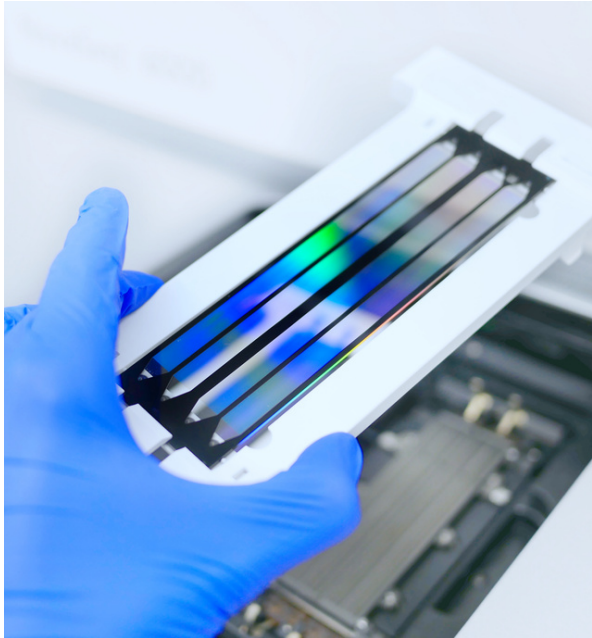
With personalized medicine becoming a fundamental part of prostate cancer patient care that analyze genetic mutations like BRCA1, BRCA2, and HOXB13 mutations, telegenetic consultations make sense as another tool in prostate cancer care.

The future of prostate cancer care looks more optimistic with these virtual care options as part of the equation.

What about future developments? E-skins, a form of tattoos, have now emerged as part of remote health monitoring.

Used in detection of physical and electrical functions including heart, muscle, and brain activity, e-skins have shown reliability in monitoring tests even under body stress conditions like sweating and while consuming spicy foods.

# Next-Generation Sequencing and Prostate Cancer



Next-generation sequencing is a DNA analysis process that enables sequencing a portion of a patient's genome.

The process allows for processing of multiple DNA sequences in parallel. Next-generation sequencing also can identify hereditary cancer mutations and cancer mutation carriers among other things.

## What Next-Generation Sequencing Means for Prostate Cancer

Next-generation sequencing is a medical advancement that aids improvements in prostate cancer patient care.

By identifying cancer mutations and hereditary cancer mutation carriers, next-generation sequencing assists oncologists in further refining targeted therapies and personalized medicine – leading to optimal patient care.

As more research goes on in next-generation sequencing, there's potential for new genetic mutations to be discovered to further enhance quality of life with patient symptoms and treatment side effects.

Please remember to ask your healthcare team what may be right for you.

# Prostate Cancer Resources

National Cancer Institute (NCI) designated comprehensive centers and renowned treatment centers.

## **UAB Comprehensive Cancer Center**

1824 Six Avenue South; Birmingham, **Alabama**

## **Arizona Cancer Center**

515 North Campbell Avenue; Tuscon, **Arizona**

## **Chao Family Comprehensive Cancer Center**

University of California Irvine

101 The City Drive

Building 56, Rt. 81. Room 216L; Orange, **California**

## **City of Hope Duarte**

Comprehensive Cancer Center

1500 East Duarte Road; Duarte, **California**

## **Salk Institute Cancer Center**

10010 North Torrey Pines Rd.

La Jolla, **California**

## **Sanford Burnham Prebys Medical Discovery Institute**

10901 North Torrey Pines Rd

La Jolla, **California**

## **Stanford Cancer Institute**

Stanford University

Lorry Lokey Stem Cell Building; 265 Campus Drive

Suite G2103; Palo Alto, **California**

## **UC Davis Comprehensive Cancer Center**

University of California

Davis 4501 X Street Suite 3003; Sacramento, **California**

## **UC San Diego Moores Cancer Center**

University of California at San Diego

3855 Health Sciences Drive; La Jolla, **California**

## **UCLA Jonsson Comprehensive Cancer Center**

University of California

8-684 Factor Building, 10833 Le Conte Avenue

Los Angeles, **California**

**UCSF Helen Diller Family**

Comprehensive Cancer Center University of California at San Francisco  
1450 3rd Street Box 0128; San Francisco, **California**

**USC Norris Comprehensive Cancer Center**

University of Southern California  
1441 Eastlake Avenue; Los Angeles, **California**

**University of Colorado Cancer Center**

13001 East 17th Place  
Aurora, **Colorado**

**Yale Cancer Center**

Yale University School of Medicine  
333 Cedar St.; New Haven, **Connecticut**

**Georgetown Lombardi Comprehensive Cancer Center**

Georgetown University  
3970 Reservoir Road, NW; Washington, **District of Columbia**

**Moffit Cancer Center**

12902 Magnolia Drive  
Tampa, **Florida**

**Winship Cancer Institute**

Emory University  
1365C Clifton Rd; Atlanta, **Georgia**

**University of Hawaii Cancer Center**

701 Italo St.  
Honolulu, **Hawaii**

**Robert H. Lurie Comprehensive Cancer Center**

Northwestern University  
303 East Superior Street; Chicago, **Illinois**

**The University of Chicago**

5841 South Maryland Avenue; Chicago, **Illinois**

**Indiana University Melvin and Bren Simon Cancer Center**  
535 Barnhill Dr.  
Indianapolis, **Indiana**

**Purdue University Center for Cancer Research**  
Hansen Life Sciences Research Building  
201 South University St.; West Lafayette, **Indiana**

**Holden Comprehensive Cancer Center**  
University of Iowa  
200 Hawkins Drive; Iowa City, **Iowa**

**The University of Kansas Cancer Center**  
University of Kansas  
3901 Rainbow Blvd; Kansas City, **Kansas**

**Markey Cancer Center**  
University of Kentucky  
800 Rose St.; Lexington, **Kentucky**

**The Jackson Laboratory Cancer Center**  
600 Main St.  
Bar Harbor, **Maine**

**Sidney Kimmel Comprehensive Cancer Center**  
Johns Hopkins University  
401 North Broadway; Baltimore, **Maryland**

**University of Maryland Marlene and Stewart Greenbaum Comprehensive Cancer Center**  
University of Maryland  
22 South Greene Street; Baltimore, **Maryland**

**Dana-Farber/Harvard Cancer Center**  
450 Brookline Avenue  
Boston, **Massachusetts**

**David H. Koch Institute for Integrative Cancer Research at MIT**  
Massachusetts Institute of Technology  
77 Massachusetts Ave; Cambridge, **Massachusetts**



**The Barbara Ann Karmanos Cancer Institute**  
Wayne State University School of Medicine  
4100 John R St.; Detroit, **Michigan**

**University of Michigan Comprehensive Cancer Center**  
University of Michigan  
1500 East Medical Center Drive; Ann Arbor, **Michigan**

**Masonic Cancer Center**  
University of Minnesota  
420 Delaware Street, S.E.; Minneapolis, **Minnesota**

**Mayo Clinic Cancer Center**  
200 First Street SW  
Rochester, **Minnesota**

**Alvin J. Siteman Cancer Center**  
Washington University School of Medicine and Barnes-Jewish Hospital  
660 South Euclid Avenue Campus; St Louis, **Missouri**

**Fred and Pamela Buffett Cancer Center**  
University of Nebraska Medical Center  
985950 Nebraska Medical Center; Omaha, **Nebraska**

**Norris Cotton Cancer Center at Dartmouth**  
Dartmouth-Hitchcock Medical Center  
One Medical Center Drive; Lebanon, **New Hampshire**

**Rutgers Cancer Institute of New Jersey**  
Rutgers Biomedical and Health Sciences  
195 Little Albany Street; New Brunswick, **New Jersey**

**University of New Mexico Cancer Center**  
1201 Camino de Salud NE  
Albuquerque, **New Mexico**

**Albert Einstein Cancer Center**  
1300 Morris Park Avenue  
Bronx, **New York**

**The Barbara Ann Karmanos Cancer Institute**  
Wayne State University School of Medicine  
4100 John R St.; Detroit, **Michigan**

**Cold Spring Harbor Laboratory Cancer Center**

1 Bungtown Road  
Cold Springs Harbor, **New York**

**Herbert Irving Comprehensive Cancer Center**

Columbia University  
1130 St Nicholas Avenue, Room 508; New York, **New York**

**Memorial Sloan-Kettering Cancer Center**

1275 York Avenue  
New York, **New York**

**Roswell Park Cancer Institute**

Elm & Carlton Streets  
Buffalo, **New York**

**The Tisch Cancer Institute Mount Sinai**

One Gustave L. Levy Place Icahn Building  
New York, **New York**

**Duke Cancer Institute**

Duke University Medical Center  
Box 2714 2424 Erwin Road; Durham, **North Carolina**

**The Comprehensive Cancer Center of Wake Forest University**

Medical Center Boulevard  
Winston-Salem, **North Carolina**

**UNC Lineberger Comprehensive Cancer Center**

450 West Drive CB 7295  
Chapel Hill, **North Carolina**

**Case Comprehensive Cancer Center**

Case Western Reserve University  
11100 Euclid Avenue, Wearn 151; Cleveland, **Ohio**

**The Ohio State University Comprehensive Cancer Center**

James Cancer Hospital and Solove Research Institute  
460 West 10th Avenue; Columbus, **Ohio**

**Knight Cancer Institute**

Oregon Health and Science University  
3181 S.W. Sam Jackson Park Rd; Portland, **Oregon**

**Abramson Cancer Center**

University of Pennsylvania  
3400 Spruce Street; Philadelphia, **Pennsylvania**

**Fox Chase Cancer Center**

333 Colttman Avenue  
Philadelphia, **Pennsylvania**

**Sidney Kimmel Cancer Center at Thomas Jefferson University**

233 South 10th Street  
Philadelphia, **Pennsylvania**

**The Wistar Institute Cancer Center**

3601 Spruce Street  
Philadelphia, **Pennsylvania**

**UPMC Hillman Cancer Center**

5150 Centre Avenue  
Pittsburgh, **Pennsylvania**

**Hollings Cancer Center**

Medical University of South Carolina  
86 Jonathan Lucas Street; Charleston, **South Carolina**

**St Jude Children's Research Hospital**

262 Danny Thomas Place  
Memphis, **Tennessee**

**Vanderbilt-Ingram Cancer Center**

691 Preston Research Building  
Nashville, **Tennessee**

**Cancer Therapy & Research Center**

University of Texas Health Science Center  
7979 Wurzbach Road; San Antonio, **Texas**

**Dan L Duncan Comprehensive Cancer Center**

Baylor College of Medicine  
One Baylor Plaza; Houston, **Texas**

**Harold C. Simmons Comprehensive Cancer Center**

University of Texas Southwestern Medical Center  
2201 Inwood Road; Dallas, Texas

**The University of Texas MD Anderson Cancer Center**

1515 Holcombe Boulevard, Unit 91  
Houston, Texas

**Huntsman Cancer Institute**

University of Utah  
2000 Circle of Hope; Salt Lake City, **Utah**

**Massey Cancer Center**

Virginia Commonwealth University  
401 College Street; Richmond, **Virginia**

**University of Virginia Cancer Center**

6171 West Complex  
Charlottesville, **Virginia**

**Fred Hutchinson/University of Washington Cancer Consortium**

1100 Fairview Ave N  
Seattle, **Washington**

**University of Wisconsin Carbone Cancer Center**

1111 Highland Avenue, Rm. 7057  
Madison, **Wisconsin**