



# STUDY GUIDE

## DO YOU PASS THE ISRAEL TEST?

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**KEY TERMS:** invention  
Palestine

achievement  
resentment

Jordan  
admiration

**NOTE-TAKING COLUMN:** Complete this section *during* the video. Include definitions and key terms.

**CUE COLUMN:** Complete this section *after* the video.

In what ways did the European Jews improve the living conditions for everyone in the desolate land they settled in?

What does the 'Israel Test' test? How?

What is the great divide in the Middle East really between?

What is so important about Israel's accomplishments?

What does the nation's answer to the 'Israel Test' demonstrate?

## DISCUSSION & REVIEW QUESTIONS:

- At the beginning of the video Mr. Gilder asks, “How do you respond to people who excel you in invention, creativity, and wealth? Do you envy them? Do you feel their success somehow diminishes you? Or do you admire what they’ve achieved and try to emulate it?” How would you answer these questions? Why?
- We learn from Mr. Gilder that, “The Jewish settlers drained malarial swamps, leached salt from the soils, terraced the barren hills, and planted millions of trees.” Why do you think that they did that? What was their motivation to do so?
- We also learn that, “In the two decades between 1921 and 1943, Jews quadrupled the number of enterprises, multiplied the number of jobs by a factor of 10, and increased the level of capital investment a hundredfold. Far from displacing Arabs, they provided the capital for a major expansion of Arab farms and enabled a sevenfold rise in Arab population by 1948, to a level of 1.35 million, the largest in the long history of Palestine,” but that neighboring country, “...Jordan, with the same geological endowment and four times the land but no Jews was able to sustain a population density only one tenth of the population density of Palestine.” Why do you think this was the case? What were the crucial differences between the two nations?
- Further, Mr. Gilder shares with us that, “Over the past fifty years, Israel has increased its population tenfold, its agricultural production sixteen fold and its industrial production fifty-fold while actually reducing net water consumption by ten percent since 1948. This huge expansion of effective water resources enabled the land to support not only more Jews, but also millions more Arabs,” due to “...world leading technological advances in the recovery of water through desalinization, drip irrigation, and sewage recycling.” Why do you think the Jewish people innovated and creatively problem-solved instead of just adopting the practices of their neighbors when they settled there? How has their brilliant ingenuity paid off?
- Mr. Gilder explains that, “The great divide in the Middle East is not between Arab and Jew but between admiration of achievement, along with a desire to replicate it, and envy accompanied by violent resentment... People who admire success, who pass the Israel Test, tend to be wealthy and peaceful. People who resent achievement, who fail the Israel Test, tend to become poor and violent.” What is the real lesson here- what is Mr. Gilder’s main point?” Why do you think that some people embrace the ‘bitter envy’ mindset instead of the ‘admiration and inspiration’ mindset?” Wouldn’t it be better for everyone if those who see Israel’s remarkable achievements attempted to emulate them rather than destroy them? Why or why not? Do you pass the Israel test?

## EXTEND THE LEARNING:

### CASE STUDY: BioWeld1

INSTRUCTIONS: Read the article “The top 12 most amazing Israeli medical advances,” then answer the questions that follow.

- How does Israel compare to the rest of the world in terms of total expenditure on civilian research and development, human infrastructure and entrepreneurship, and medical device patents per capita? How many Israeli healthcare companies are started annually?
- What enables the growth of such a robust and thriving industry? What factors are critical to Israel being able to innovate and compete so well on the global scale? What does the ExAblate OR do? What makes it so innovative and marketable?
- Considering that Israel’s neighboring nations are brimming with smart, capable people too, why do you think that those people choose to focus their intellectual resources and capabilities on destruction and violence rather than on industry that would help them much more than being violent does? Israel is a proven model of success in the region- yet Israel’s neighbors are bent on destruction. How significant a role do you think values and religion play in the differing outcomes of Israel and the neighboring nations? Why?



# QUIZ

## DO YOU PASS THE ISRAEL TEST?

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1. **Israel's large increase in population over the past 50 years has created a serious strain on available water resources.**
  - a. True
  - b. False
  
2. **In the 1880s, European Jews settled in mandate Palestine and had great success in:**
  - a. Business with their neighbors.
  - b. Agriculture in a desolate territory.
  - c. Science.
  - d. Medicine.
  
3. **Jordan, which has the same geological endowment and four times the land of Israel:**
  - a. Was able to do better agriculturally than Israel.
  - b. Was able to provide more for its people.
  - c. Was only able to sustain a population one tenth of the population density of mandate Palestine.
  - d. None of the above.
  
4. **Israel invented:**
  - a. Desalinization.
  - b. Drip irrigation.
  - c. Sewage recycling.
  - d. All of the above.
  
5. **People who admire success and pass the Israel Test, tend to be:**
  - a. Wealthy and peaceful.
  - b. Poor and upset.
  - c. Wealthy and anti-Israel.
  - d. Poor and anti-israel.



# QUIZ - ANSWER KEY

## DO YOU PASS THE ISRAEL TEST?

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1. Israel's large increase in population over the past 50 years has created a serious strain on available water resources.

- a. True
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<http://www.israel21c.org/the-top-12-most-amazing-israeli-medical-advances/>

## The top 12 most amazing Israeli medical advances

**Israel is a powerhouse in medical innovation. We give you a dozen standouts from a field with many exciting, game-changing candidates.**

By [Abigail Klein Leichman](#) October 15, 2013, 12:15 am



Israeli ingenuity is responsible for some of the world's most amazing medical advances.

Whether they're futuristic, such as Given Imaging's [PillCam](#) capsule endoscopy or Itamar Medical's [fingertip monitors](#) for sleep disorders and cardiac issues — or cleverly simple, such as First Care Products' [Emergency Bandage](#) — blue-and-white inventions are changing the face of healthcare in hospitals, doctors' offices, homes and even battlefields worldwide.

"It's almost a cliché to say Israel is an excellent place for medical innovation," says Eran Perry, managing director at Israel Health Care Ventures (IHCV), one of the largest venture capital funds in the country.

"But if you look at [global] statistics, it's evident — from total expenditure on civilian R&D, where we are ranked first; to human infrastructure and entrepreneurship, where we rank in the top five. You can see the results in patents. We are first in the world for medical device patents per capita, and second in Europe for bio-pharma."

About 1,000 Israeli companies are in healthcare or life-science products, including 700 in medical devices. Approximately half are already generating revenue.

“There has been an ecosystem created for life sciences, so these 1,000 companies don’t exist in a vacuum but in an environment where they have access to everything they need — engineering, labs, regulatory consultants, manufacturing consultants,” Perry tells ISRAEL21c. “Many young companies can be a one-man show until they get to the clinical trial stage, relying on this excellent ecosystem around them. You can see Israeli companies reaching the same stage as American ones with a fraction of the capital investment.”

IHCV reviews 200 to 300 new opportunities per year. Perry estimates that 60 to 70 Israeli healthcare companies are founded annually. Proceeds from mergers and acquisitions involving Israeli healthcare companies totalled around \$1 billion in the past year.

That’s why ISRAEL21c had a hard time narrowing the field to this top 12 list of the most significant recent Israeli contributions to the medical field.

We have chosen products already on, or very near, the market. If you’ve got other companies you think also deserve a mention please don’t hesitate to add them to the comments section below.

And watch for a future top 10 list of the most exciting Israeli medical-device and pharmaceutical developments just around the corner.

And now ... ISRAEL21c’s top 12 Israeli medical innovations, in alphabetical order.

1. [ApiFix](#) system to correct severe curvature of the spine (scoliosis) minimizes risks, scar size, complications, recovery time and cost. The miniature ratchet mechanism has successfully been implanted in 15 patients so far. Limited sales of the product have begun while clinical trials are in the last stages.



2. **Argo Medical Technologies' [Rewalk](#)** robotic exoskeleton from was featured on the hit TV show "[Glee](#)" and enabled [paraleptic runners in London](#) and Tel Aviv to complete marathons. The ReWalk Rehabilitation model currently is used by patients in rehab centers from New York to Dusseldorf. ReWalk Personal, for everyday home use, is available throughout Europe and awaiting FDA clearance in the United States.

3. **Gamida Cell** is developing stem-cell therapy products to treat blood cancers, solid tumors, non-malignant blood diseases such as sickle-cell anemia, autoimmune diseases and genetic metabolic diseases. On Sept. 9, the first patient was successfully transplanted at Duke University Medical Center (North Carolina) in the second Phase I/II study of NiCord, Gamida's experimental treatment for blood cancers.

4. **GI View [Aer-O-Scope](#)** disposable colorectal cancer screening device, now in US trials, will make lifesaving colonoscopy screenings cheaper, safer and more accessible worldwide. The self-navigating, flexible Aer-O-Scope removes the risk of perforating the colon, provides superior imaging and can be used by a trained nurse or technician so a gastroenterologist does not have to be present.

5. **IceCure Medical's [IceSense3](#)** has been used by US doctors since 2011 to remove benign breast lumps in a 10-minute ultrasound-guided procedure that penetrates the tumor and engulfs it with ice. The system is being clinically tested over the next few years against small malignant breast tumors as well. The procedure is done in a doctor's office, clinic or breast center, and the patient can get up and leave afterward with no recovery period or post-care.



6. **InSightec's [ExAblate OR](#)** uses MRI-guided focused ultrasound to destroy tumors and uterine fibroid cysts without surgery. The company has begun a Phase III trial of its next product, ExAblate Neuro, to cure essential tremor — a common movement disorder — using the same non-invasive technology to significantly lower risk of infection, hemorrhage and brain damage.

7. **IonMed's [BioWeld1](#)** bonds surgical incisions using cold plasma — instead of painful stitches, staples or glue — within minutes, sealing and disinfecting the wound with minimal scarring and recovery time. The CE Mark is expected in October, with European sales and US FDA approval process starting in early 2014.





**8. Nano Retina's [Bio-Retina](#)**, a tiny implantable device inserted into the retina in a 30-minute procedure, turns into an artificial retina that melds to the neurons in the eye. Activated by special eyeglasses, the device transforms natural light into an electrical impulse that stimulates neurons to send images to the brain. The prototype is advancing quickly through clinical trials.

**9. NanoPass Technologies' [MicronJet](#)** is a unique, FDA-approved single-use needle for painless delivery of vaccines into the skin using semiconductor technology. The product has been proven to generate superior immune response with less vaccine, because it does not go past the skin level. Licensed last year to Janssen Pharmaceuticals, MicronJet is being used by the US Center of Disease Control (CDC) in a large trial of polio vaccine for infants in Southeast Asia.

**10. OrSense's NBM-200** non-invasive monitor is relied upon by blood donation centers in 40 countries for continuous and spot measuring of potential donors' hemoglobin level (to check for anemia) and other blood parameters. This device eliminates the need for finger pricking as well as biologically hazardous equipment and waste. Studies show that donors screened this way are more likely to become repeat blood donors. OrSense recently [completed successful trials](#) using its technology to detect hemorrhage and anemia in pregnant women.

**11. Surpass Medical's NeuroEndoGraft** flow diverters redirect blood flow from a brain aneurysm (a bulge in a weak artery wall), so that a stable clot can form and the potentially fatal aneurysm no longer is in danger of rupturing. The family of devices has the CE Mark and has been used successfully in dozens of patients. US medical device manufacturer Stryker acquired Surpass for \$100 million in October 2012.

**12. VitalGo Systems' [Total Lift bed](#)** is the world's only hospital-grade bed that can elevate a patient from a lying to a fully standing position — and all points in between — for treatment and transfer with no lifting required of the caregiver. Two major companies are distributing Total Lift in the acute-care and home-care markets in the United States.