

Bone Densitometry

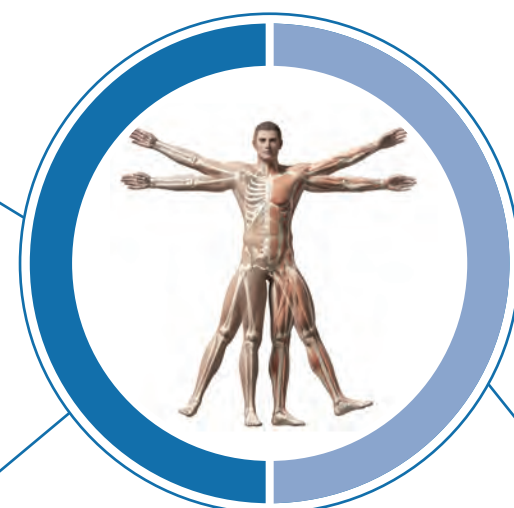
DXA is a low dose radiation X-ray system capable of detecting very small percentages of bone change.

Facts...

- Osteoporosis affects more than 200 million people worldwide.¹
- 34 million Americans are at risk of osteopenia.¹
- Acute and long term medical expenses associated with osteopenic fractures are estimated to be \$474 billion over the next two decades.¹
- Studies indicate that an extra one million women screened for osteoporotic would reduce the cost of fracture treatment and hospital stays by \$77 million.²
- In the United States, the cost of all osteoporosis related fractures is currently equivalent to the combined treatment costs of cardiovascular disease and asthma.³

1. <http://www.aaos.org/about/papers/position/1113.asp>
2. King, AB, et al, Osteoporosis International. 16:1545, 2005.
3. Kai, MC, et al, Bulletin of World Health Organization. 81:827, 2003.
4. <http://www.iofbonehealth.org/facts-statistics#category-14>

In the US, 10 million people have osteoporosis, and 18 million more are at risk of developing the disease.¹



In 2014, 39% of adults aged 18 years and older were overweight, and 13% were obese.⁵

Obesity harms every aspect of health, from shortening life and contributing to chronic conditions such as diabetes and cardiovascular disease. Breathing, mood, and social interactions are also negatively affected.⁹

Worldwide, osteoporosis causes more than 8.9 million fractures annually, resulting in an osteoporotic fracture every 3 seconds.⁴

Body Composition

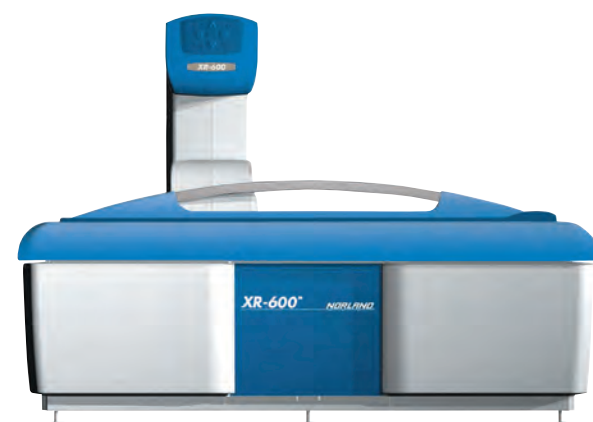
DXA is the gold standard, three compartment model for measuring body composition. Assessments include bone, fat, and lean mass.

Facts...

- Worldwide obesity has more than doubled since 1980.⁵
- In 2014, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 600 million were obese.⁵
- Estimates based on 2008 data indicated that overweight and obesity account for \$147 billion in total medical expenditure in the United States.⁶
- Obesity is associated with job absenteeism, costing approximately \$4.3 billion annually.⁷
- Obesity leads to lower productivity while at work, costing employers \$506 per obese worker per year.⁸

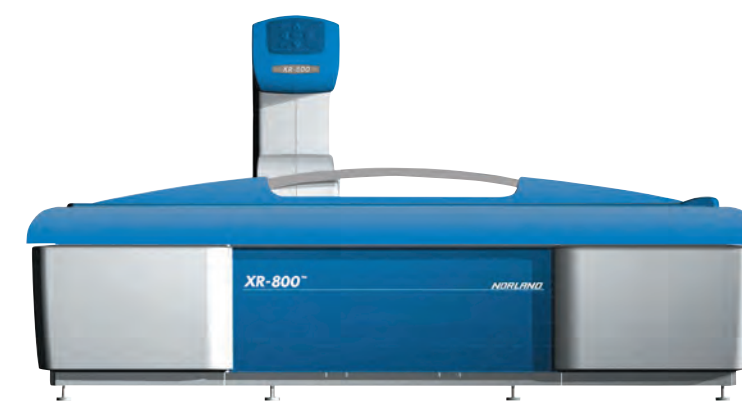
5. <http://www.who.int/mediacentre/factsheets/fs311/en/>
6. Crawley, J, et al, Journal of Health Economics. 31:219, 2012.
7. Crawley, J, et al, Journal of Occupational and Environmental Medicine. 49:1317, 2007.
8. Gates, DM, et al, Journal of Occupational and Environmental Medicine. 50:39, 2008.
9. <http://www.hsph.harvard.edu/obesity-prevention-source/obesity-consequences/health-effects/>

Norland Densitometers



XR-600

- Lowest radiation dose
- Non-whole body densitometer
- Compact table design
- Cost effective
- Ideal for office settings



XR-800

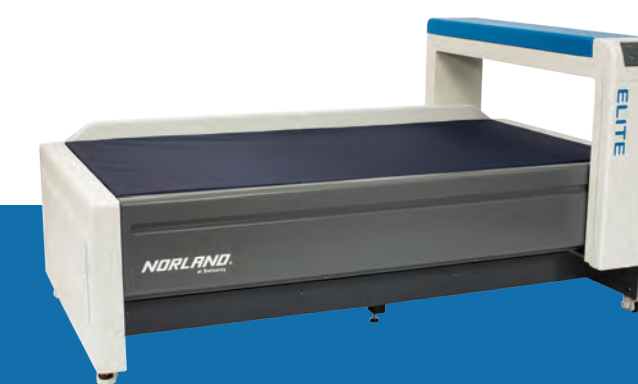
- Lowest radiation dose
- Whole body densitometer
- Gold standard body composition assessment
- Siri and Brozek % fat classification
- Versatile instrument for clinical and non-clinical settings



ELITE

- Market's largest DXA system
- Gold standard body composition assessment
- Siri and Brozek % fat classification
- Largest scan window in the industry
- Heaviest weight capacity in the industry
- Lowest radiation dose
- Most versatile DXA in the market

NORLAND ELITE DXA... The Industry's Largest Densitometer



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Norland at Swissray... Innovations Since 1951

Norland has been an innovator in the densitometry market since its founding.



1951 Company founded in Fort Atkinson, Wisconsin.

1968 The Norland 178 SPA is the first commercial bone densitometer in the world.

1978 The Norland 278 SPA is the original microprocessor controlled bone densitometer.

1980 An enhanced version of the Norland 278 SPA is introduced, with ability to work in different scan modes.

1983 The Norland 2600 DXA unit is launched, featuring an isotope based spine, hip, and whole body scanner.

1988 Norland XR-26 DXA system featuring X-ray based spine, hip, and whole body scanner.

1991 Norland Eclipse DXA unit, with X-ray based spine and hip studies.

1993 Norland XR-36 DXA system utilizes dynamic filtration, which reduces scan time to one minute for AP spine and starts reporting fracture risk assessments.

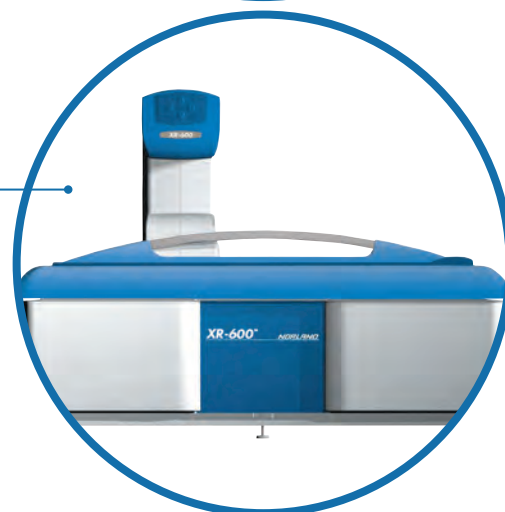
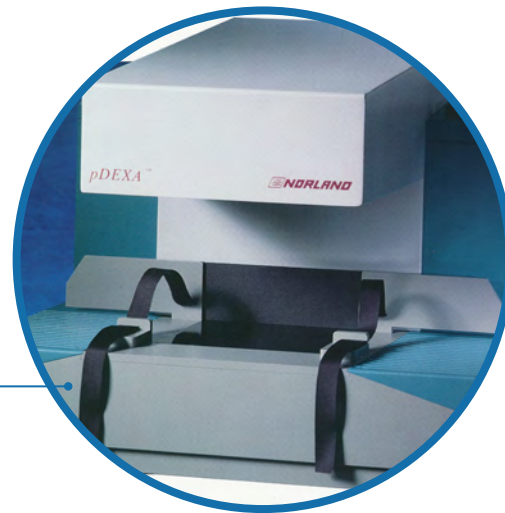
1994 Norland pDXA introduced, which significantly expands the clinical focus on osteoporosis assessment and treatment.

2000 Norland XR-46 DXA pioneers fast whole body scan at five minutes.

2007 Norland XR-600 and XR-800 DXA units released featuring Windows software, and body composition classification based on underwater equivalent equations.

2013 Swissray, a company with a strong X-ray based focus, acquires Norland.

2016 Norland ELITE, a DXA scanner that meets the needs of the bariatric and athletic markets.

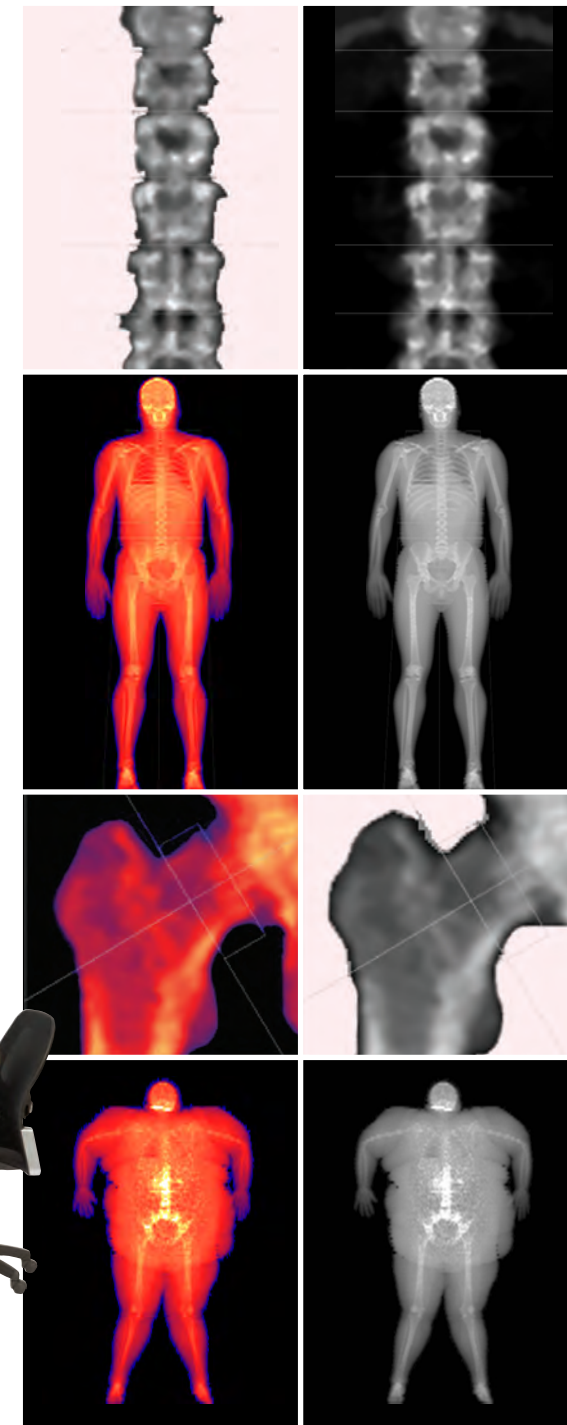


Norland DXA - Intelligently Designed Densitometers

Consistency Without Operator Intervention

Norland utilizes automated technology to deliver efficient workflow and accurate studies without methodological error.

- **Automatic ROI** setting eliminates operator intervention.
- **Intelligent edge detection** streamlines post scan analysis.
- **Dynamic Filtration** automatically adjusts the radiation dose based on tissue thickness, eliminating issues associated with saturation or starvation.
- **Noise free X-ray detectors** for optimized detection.



Lowest Radiation Dose in DXA*

	Competitor One	Competitor Two	Norland XR-800	Norland ELITE
Radiation Dose	6.0µSv	8.0µSv	0.2µSv	0.2µSv
Scans equal to one chest X-ray	16.6	12.5	500	500

- Norland's unique Dynamic Filtration process ensures minimal subject radiation dose by adjusting X-ray flux based on tissue thickness.
- Norland systems eliminate detectable beam scatter allowing shortest operating distance in the industry.

*Radiation Protection Dosimetry, 117:228, 2005

