

#### Non-invasive cardiovascular risk assessment

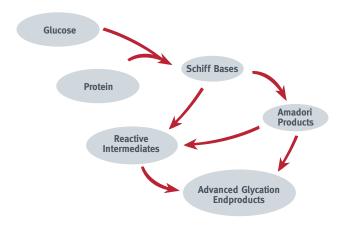
The AGE Reader provides an immediate prediction for the cardiovascular risk of your patient. The measurement is reliable, real time and non-invasive. The high AGE Reader measurement quality is now available with an innovative design.



### **About AGEs**

#### (Advanced Glycation Endproducts)

AGEs are the result of a chain of chemical reactions (the Maillard reaction) after an initial glycation. AGEs normally accumulate slowly over a person's lifetime in tissues with slow turnover. But this process occurs more rapidly in patients with conditions such as diabetes mellitus, renal failure and cardiovascular disease. These accumulated AGEs play a key role in the development of diabetes and its complications. The level of AGEs in tissue reflects the glycometabolic memory and is a valuable predictor of (pre)diabetes and cardiovascular complications.



AGEs play a key role in the pathogenesis of many age-related diseases, such as diabetes, cardiovascular disease and renal failure.

# Measuring AGEs

With any other measurement it has been complicated to measure tissue AGEs in patients because they are expensive, time consuming, lack specificity, are poorly reproducible and/or are invasive. The AGE Reader is the answer to the need for measuring AGEs without the disadvantages of the existing methods. This state of art device provides a simple non-invasive solution, which allows clinicians to determine the AGE level within 10 seconds.

Many advanced glycation endproducts (AGEs) have a characteristic fluorescence. Moreover, tissue fluorescence in (invasive) biopsies has an established association with chronic complications. The AGE Reader is able to easily, quickly and noninvasively measure AGEs by means of fluorescence techniques<sup>1</sup>.



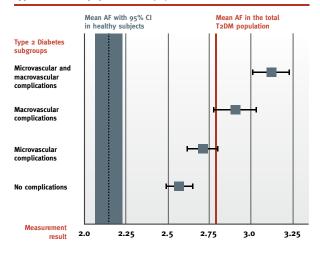
### **AGE Reader**

The AGE Reader provides an immediate prediction for cardiovascular risk. The measurement is reliable, real time, non-invasive and easy to use.

Moreover, the AGE Reader has been validated in clinical studies around the world. The AGE Reader has been used in clinical practice and research since 2006 in over 350 clinics worldwide. Since the introduction of the AGE Reader more than 100 peer reviewed papers have been published. These papers give an overview of clinical studies in diabetes<sup>2</sup>, cardiovascular disease<sup>3</sup> and renal disease<sup>4</sup>.



#### Type 2 Diabetes population (n=987)



## **Clinical validation**

Key conclusions of the clinical validation studies using the AGE Reader in diabetes:

- Reflects vascular damage in the diabetes patient and identifies diabetic patients at risk of developing complications<sup>2,7</sup>.
- Best single predictor of (cardiovascular) mortality, except age<sup>5</sup>.
- Independent predictor of microvascular complications in type 2 diabetes<sup>6</sup>.
- A cost-effective assessment tool that adds clinical value to conventional risk engines<sup>5</sup>.

## Clinical use

Clinical professionals have been successfully using the AGE Reader in their clinics for about 10 years.

The AGE Reader is the answer to the need to quickly, reliably and non-invasively measure the cardiovascular risk of your patient.

The AGE Reader assists clinical professionals in identifying patients with an increased cardiovascular risk. This helps clinicians to decide whether a change in treatment is needed.

This non-invasive and convenient measurement can be performed by any clinical professional and is completed within 10 seconds.



The AGE Reader mu is part of the AGE Reader product line.

Please visit our website for more information about the other products.

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#### References

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