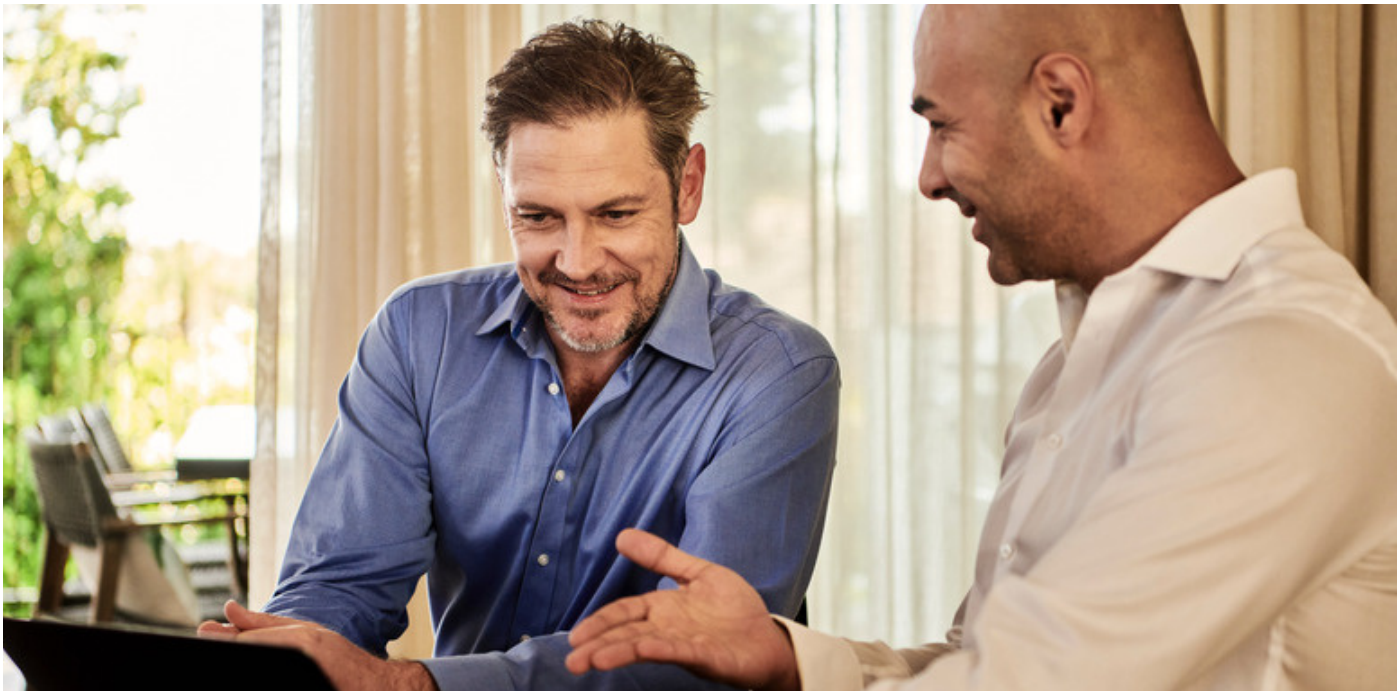
DIASHOE
DIGITAL EDUCATION FOR DIABETIC FOOT CONTROL

ERASMUS+ DIASHOE
Digital Education For Diabetic Foot Control
(Ref: 2020-1-PT01-KA202-078687)

MARCH 2023 - NEWSLETTER - ISSUE 4

DIASHOE: PREVENTING AND ADDRESSING THE DIABETIC FOOT SYNDROME



During the past months, the partners of the Erasmus+ DiaSHOE project have been actively working on the development of the second and third Digital Education Packages dedicated respectively to health technicians and shoe shop employees, and to patients, their families, teachers, informal caregivers, or any other supportive education personnel who are in continuous contact with them, and the community in general. The project is now slowly coming to an end and the partners met one last time in São João da Madeira (Portugal) to discuss the overall positive feedbacks from the stakeholders and finalise the last steps. As we have recalled throughout the project, one of its the main objectives is to create specific educational opportunities for the different group of people directly and indirectly involved in regularly Diabetic Foot Control (DFC), namely footwear designers, shop assistants, and obviously also diabetic patients and their families.

In this issue of our newsletter, INESCOP (Footwear Centre for Technology and Innovation) will introduce you to the Digital Education Package dedicated to health technicians and shoe shop clerks in more detail. Then, TUIASI (Gheorghe Asachi Technical University of Iasi) will offer you an overview of the 6 units developed for this Digital Education Package. Finally, COKA (Czech Footwear and Leather Association) will present you the final Digital Education Package intended for patients, their families, teachers, and informal caregivers.

We wish you all a pleasant reading and invite you to keep following the latest project news on our social media (Facebook and LinkedIn) and on our website!

INSIDE THE NEWSLETTER

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Digital Education Package for health technicians and shoe shop clerks *(by INESCOP)*

According to the International Diabetes Federation (IDF), Europe has the highest diabetes incidence with 31,000 new cases per year, which will lead to an increase of 13 % in the current prevalence of diabetes (9.2 %) and number of patients (61 million) by 2045. These alarming figures raise concern among the healthcare community, since 25-50 % of diabetes patients have to undergo an immediate amputation as a result of a co-existing infection, as reported by the Regional Office for Europe of the World Health Organisation (WHO Europe).

Infections in the diabetic feet are usually caused by poorly healing wounds, which often result from the use of inadequate footwear. In this sense, the role of healthcare professionals is essential, as they should be aware of the features that adequate footwear should include so that it can be worn by the patient as a preventive tool to avoid serious complications.

In this context, the DiaSHOE project partners have developed a digital education package aimed at health professionals and shoe-shop clerks in order to improve their skills to better advise people with diabetes on their choice of footwear and adequately interpret footwear-related individual medical prescriptions.

This digital education package, available at the e-learning platform Losglobos, consists of 6 units dealing with the issue at stake in the project – the diabetic foot – and providing guidance to healthcare professionals and shoe-shop clerks so that they can suitably advise people living with diabetes on their choice of footwear.

In the DiaSHOE project, stakeholders play a key role in the development and implementation of the educational packages. As such, healthcare professionals and shoe-shop clerks from partner countries have been involved in the piloting of the digital training package, where they have been able to provide their feedback on its usefulness after completing it.

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Digital Education Package for health technicians and shoe shop clerks *(by INESCOP)*

The results of the feedback obtained from the piloting show that:

- **The digital education package for health professionals and shoe-shop clerks contributes to raise awareness of the role of footwear to prevent complications in diabetic feet among the healthcare community.**
- **Health professionals and shoe-shop clerks have found the digital education package useful to help them recommend footwear and footwear-related products to diabetic patients according to their individual needs and prescriptions.**
- **The applicability potential of the digital education package is strong as it can be implemented to train from junior shoe-shop employees to health professionals who are specialist in other fields of health not related to the diabetic feet.**

With this digital education package, the DiaSHOE project aims to, not only improve skills to better advise people with diabetes on their choice of footwear, but also raise awareness of footwear as a preventive tool to avoid serious complications in diabetic feet, such as gangrene, which could ultimately lead to amputation. This may potentially contribute to a decrease in the average cost per person with diabetes, for which Europe stands in the second place at global level (2,878 EUR).

An overview of the different units developed in the Digital Education Package for health technicians and shoe shop clerks *(by TUIASI)*

As mentioned before, the second Intellectual Output of DiaSHOE project focuses on Digital Education Package for health technicians and shoe shop clerks. This package has relied on digital-based, interactive open resources and offers a skills-building tool to guide shoe-shop clerks and health technicians on how to advise people with diabetes on their choice of footwear, based on their situation and/or medical prescriptions.

The entire package was also translated into each of the partner's national language (Czech, German, Polish, Portuguese, Spanish, Romanian) and are available now on the platform, for all those interested, register and follow the lessons here: https://www.losglobos.eu/form/ds

The project's partners have developed 6 Units of learning, with several subtopics each. The detailed structure:

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1. The diabetic foot anatomy and complications
   - Changes to the anatomy of the diabetic foot
   - Peripheral neuropathy (sensitivity, vibration perception; neuropathy disability score)
   - Peripheral Artery Disease (PAD)
   - Foot deformity (hallux valgus, clawed/hammer toes, pes-planus, cavus foot, abnormally wide feet, flat foot, Charcot foot)
   - Ulceration, infection, and amputation

2. Diabetic foot control and aftercare
   - Diabetic foot screening
   - Assessing the risk of developing a diabetic foot problem
   - Solving diabetic foot problems
   - "Footwear prescription" for diabetes patients
   - Principles of diabetic foot care

3. Footwear for people with diabetes
   - The role of footwear in the prevention of diabetic foot problems
   - Diabetic-style shoe. Constructions and designs
   - Recommended materials and components for diabetic shoes
   - Footwear for people with diabetes at risk of foot ulceration

4. Control parameters in diabetic footwear- Part 1
   - Classification of the control parameters in footwear
   - Softness, cushioning, and flexibility
   - Temperature control and thermal insulation
   - Microbial and fungal resistance
   - Humidity control, breathability and water resistance

5. Control parameters in diabetic footwear - Part 2
   - Measuring the foot
   - Size and fitting
   - Plantar pressure distribution
   - How to reduce the plantar pressure overloading effect through footwear?
   - Custom made footwear and components

6. Patients' needs for diabetic footwear
   - How to detect the patient's needs?
   - Principles of proper foot care and prevention actions
   - How the foot-related complications are avoided through footwear?
   - Maintenance of the footwear. How to keep the specific footwear in a proper condition?
   - Legislation. Medicare coverage for diabetic shoes

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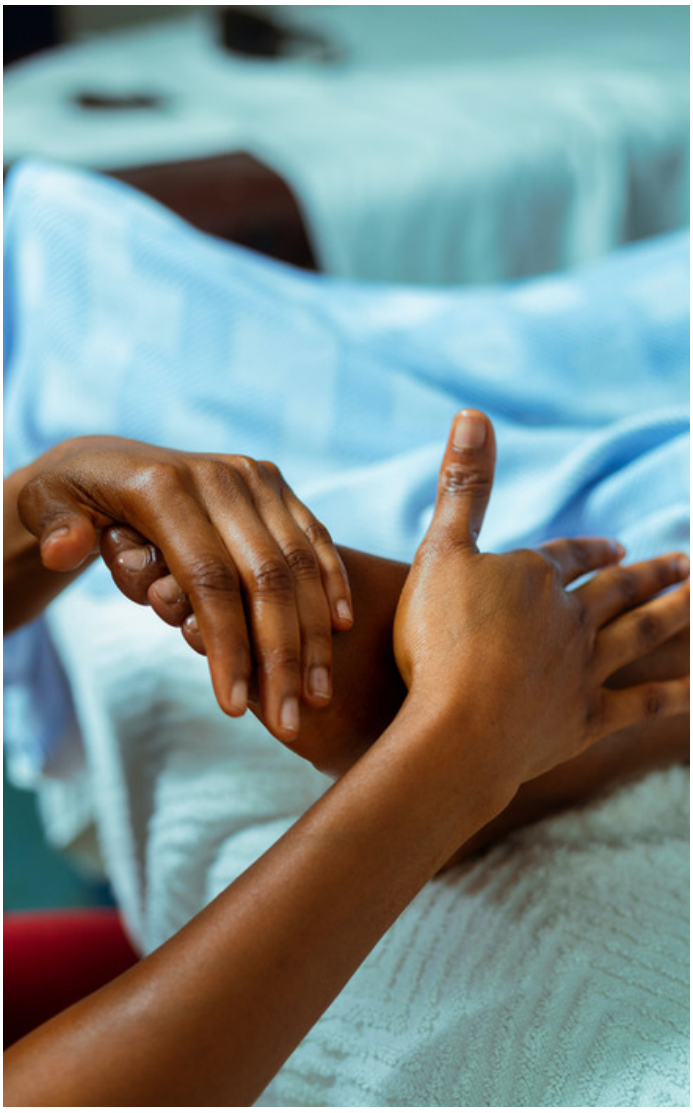
Digital Education Package for patients, their families, informal caregivers, professors and educators *(by COKA)*

As demonstrated all along the project, it is necessary to educate diabetics, as well as other caregivers, early on about the importance of proper foot care and what shoes suitable for diabetics must meet. The aim of the DiaSHOE project is therefore to reduce the number of amputations compared to the current treatment due to the lack of effective prevention, education of all the groups involved and thus increase the quality of life of diabetics.

Now, the Erasmus+ DiaSHOE project has completed an educational package for self-care of the diabetic foot. This package is designed specifically for diabetics and their caregivers. It consists of 5 educational lessons.

The content of these lessons is firstly to give more information about diabetes, then to learn what Diabetic Foot Syndrome is, what health complications can occur associated with this syndrome and finally, who to contact if there is a problem with the foot.



In the third part, participants will learn how to take care of diabetic feet, how to perform a foot examination, what rules to follow when taking care of the feet and what to avoid.

Then, they will learn how to ensure comfort, health and activity of the diabetic foot through footwear as well as what appropriate footwear for a diabetic should look like including what to look for when buying shoes and what a shoe for diabetic patient should meet. Finally, they will find out how to care for the shoes and what to check on the shoes so that they do not cause injury to the wearer, which could lead to serious problems.

Finally, they can test their newly acquired knowledge in a short test at the end of each lesson.

We believe that this digital education programme will lead to an increase in the level of knowledge of diabetic patients in foot care, thereby reducing foot problems and the number of lower limb amputations. This will lead to a desirable quality of their life in their working life and especially in old age.

Each part of the educational packages is tested directly with the respective target group. In the Czech Republic, this package was presented and discussed at the Pensioners' Club Kvítkovice, with 32 participants, mostly seniors.

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The last event will be a webinar organised by the European Footwear Confederation (CEC) and will take place on the 30th of March from 16:00 to 17:30 CET via the platform Microsoft Teams. This event will give rise to a discussion between several experts on the subject and deliver more explanation and results on the project.

You can attend the online conference by registering on https://forms.gle/ZJVuzGbjeBZn8Tyh6 by the 29th March.

In the next and final issue of DiaSHOE's newsletter, you will learn more about all the different events organised by each of the partners throughout the project, the final results and feedbacks and finally, an overview of project's sustainability in time.

In the meantime, you can follow our activity on the project website and the social media and do not hesitate to contact the consortium for any information!

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Czech Footwear and Leather Association (COKA)

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ERASMUS+ DIASHOE

KA2 - Cooperation for innovation and the exchange of good practices

KA202 - Strategic partnerships for Vocational Education and Training

Project reference: 2020-1-PT01-KA202-078687

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