

# Self-care measures to prevent venous ulcer recurrence: a scoping review protocol\*

## Medidas de autocuidado para prevenção da recidiva de úlceras venosas: protocolo de revisão de escopo

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### RESUMO

**Objetivo:** Mapear as medidas de autocuidado para prevenção de recidiva de úlceras venosas nos diversos cenários de atenção à saúde. **Método:** Protocolo de revisão de escopo, tendo como pergunta de pesquisa: quais as medidas de autocuidado para prevenção de recidiva de úlceras venosas nos diversos cenários de atenção à saúde? Serão utilizados como bases de dados: Banco de Dados em Enfermagem (BDENF), CINAHL, LILACS, MEDLINE (via PUBMED), SCIELO, SCOPUS, Cochrane Library, EMBASE e *Web of Science*, além da literatura cinzenta. O processo de busca, a avaliação, seleção e extração de dados serão realizados por pares cegados e, em caso de divergência, um terceiro revisor será consultado. Os resultados serão apresentados na íntegra, em formato de narrativa e diagramas de fluxo, de forma a se alinhar à questão de pesquisa proposta. Protocolo registrado na *Open Science Framework* (OSF): [osf.io/y7ckp](https://osf.io/y7ckp).

**Descritores:** Úlcera Varicosa; Recidiva; Prevenção.

### ABSTRACT

**Objective:** To map self-care measures to prevent venous ulcer recurrence in different healthcare settings. **Method:** Scoping review protocol, with the following research question: What are the self-care measures to prevent the recurrence of venous ulcers in different healthcare settings? The following databases will be used: Nursing Database (BDENF), CINAHL, LILACS, MEDLINE (via PUBMED), SCIELO, SCOPUS, Cochrane Library, EMBASE, and Web of Science, in addition to the grey literature. Blinded peers will carry out the search process, evaluation, selection, and data extraction, and in case of disagreement, a third reviewer will be consulted. The results will be presented in narrative format and using flow diagrams aligned with the proposed research question. The protocol was registered in the Open Science Framework (OSF): [osf.io/y7ckp](https://osf.io/y7ckp).

**Descriptors:** Varicose Ulcer; Recurrence; Prevention.

### INTRODUCTION

Venous Ulcers (VU) are defined as chronic lesions that arise between the malleolar region and the middle third of the leg, as a result of persistent venous hypertension, usually in the final stage of untreated venous insufficiency. This condition causes a reduction in the diffusion of nutrients and oxygen, causing a favorable microenvironment for the appearance of lesions<sup>(1-2)</sup>, which can last for weeks or years until healing and often appear in repetitive cycles of lesion, healing, and recurrence<sup>(2-3)</sup>.

Venous ulcers are the most common lesions affecting the lower limbs, accounting for around 80% of cases, with an incidence of three to five cases per 1,000 inhabitants per year, higher in females or over 65 years of age<sup>(3)</sup>. When not properly managed, these lesions have a recurrence rate of 18% to 28% one year after healing and may reach 78% after two years<sup>(3)</sup> and tend to be 4.5 times more frequent in patients with a history of multiple injuries<sup>(4)</sup>. The presence of injury negatively impacts the individual's quality of life, as it is often associated with pain, discomfort, exudation, odor, physical and mental suffering, mobility restriction, changes in body image and self-esteem, disability to carry out activities of daily living, restriction of leisure, and social isolation<sup>(5-8)</sup>.

In addition to social security issues, mention is made of the long treatment periods and the high cost for the health system and the patient<sup>(5-8)</sup>.

Failures in self-care are identified as contributing and sometimes determining factors for VU recurrence and are often attributed to insufficient knowledge about the disease and associated recurrence prevention measures<sup>(9-10)</sup>.

Given the topic's relevance, we decided to carry out a scoping review to map the available self-care measures and the knowledge gaps on the subject. In this way, understanding issues related to preventive measures for self-care prevention against venous ulcers will help in conducting primary studies, designing projects, implementing measures, and understanding the obstacles that permeate the theme. This will enable a survey of strategies and professional awareness about the care needs of patients with healed venous ulcers and will provide information to help them. To this end, a preliminary search was carried out on March 15, 2022, in MEDLINE (via PUBMED), *Cumulative Index to Nursing and Allied Health Literature* (CINAHL), SCOPUS, JBI Evidence Synthesis, Open Science Framework (OSF), Cochrane Library, and PROSPERO, and no finalized or ongoing scoping review was identified on the topic. Thus, the review's objective is to map self-care measures to prevent venous ulcer recurrence in different healthcare settings.

## METHOD

This is a scoping review protocol guided by the Joanna Briggs Institute's (JBI)<sup>(11)</sup> methodology and by the PRISMA-ScR<sup>(12)</sup> checklist. This type of review has the broad objective of mapping the available scientific publications, allowing the synthesis of knowledge and the mapping of concepts in a research field in a rigorous, transparent, and reliable manner<sup>(11)</sup>. The protocol has been registered with the OSF: [osf.io/y7ckp](https://osf.io/y7ckp).

## Review question

The following research question was formulated based on the PCC (Participants, Concept, and Context)<sup>(11)</sup> acronym: What self-care measures prevent venous ulcer recurrence in adult patients in different healthcare settings?

## Inclusion criteria

### Participants

Participants in this review will be adult patients with recurrent or healed active venous ulcers,

of any etiology, with or without associated comorbidities.

### Concept

This review will include studies involving self-care measures to prevent the recurrence of venous ulcers. These measures include using elastic stockings, rest exercises to strengthen the calf muscle, skin hydration, and others that may be presented in the studies.

### Context

Studies in different healthcare settings (hospital, outpatient, and home) will be included. There will be no limitations on geographic locations or cultural, social, ethnic, or gender factors.

### Source types

Systematic reviews, meta-analyses, randomized clinical trials, non-randomized controlled trials, quasi-experimental studies, and observational studies (prospective and retrospective cohort studies, case-control and cross-sectional studies) will be considered. Also, national and international dissertations and theses, manuals, guidelines, and opinion articles will be considered for this review, as well as recommendations from expert societies. As additional sources, articles will be inserted from the references of the selected studies.

Databases for this review will include BDNF (Nursing Database), CINAHL, LILACS (Latin American and Caribbean Health Sciences Literature), MEDLINE (Medical Literature Analysis and Retrieval System Online, via PUBMED), SciELO (Scientific Electronic Library Online), SCOPUS, Cochrane Library, EMBASE and Web of Science. For the search in the grey literature, the following portals will be incorporated: the CAPES Catalog of Theses and Dissertations, the Networked Digital Library of Theses and Dissertations (NDLTD), protocols and clinical guidelines recognized by government agencies in different countries and specialist societies, via Google Scholar. No time, language, or location restrictions will be applied.

### Exclusion criteria

Studies addressing the primary prevention of venous ulcers, patients with mixed ulcers, and prevention measures related to surgical and drug interventions, in addition to texts not available in full format, and those that do not answer the research question will be excluded.

**Search strategy**

The adopted strategy will be divided into three stages in this review. An initial limited search was carried out in MEDLINE (via PUBMED) and EMBASE, followed by an analysis of the words used in the titles, abstracts, and index terms used to build a broad search strategy that includes the necessary terms. The following search strategy was used: (“varicose ulcer” OR “leg ulcer”) AND recurrence OR “secondary prevention” OR “self care”). The next step will be the search in the databases included in this review, using the keywords and index terms identified. Figure 1 presents the complete search strategy in the CINAHL database. In the third step, the reference lists of reports and articles included will be screened for additional studies. If necessary, a statement of intent for reviewers to contact authors of primary sources or reviews for further information will be prepared.

**Selection of studies**

Studies will be selected using a three-step process: 1. Results management and duplicates removal; 2. Selection of studies by title and abstract; and 3. Selection after full-text screening. The studies retrieved in the search strategies will be imported into the Endnote reference manager to identify duplicates and, subsequently, exported to the Rayyan software, in which the study selection will be made by blinded pairs analyzing the titles and abstracts based on pre-specified inclusion criteria from the protocol. Eligible studies will be sent to the Mendeley reference manager for better organization and full text screening. The analysis of the full texts will be carried out in detail, maintaining the pair blinding, in a new stage, using Rayyan. At the end of each stage of selection, the blinding will be removed, and, in case of disagreement between the two researchers, a third reviewer will be consulted.

Database: CINAHL	( ( “Varicose Ulcer” OR ((Ulcer OR ulcers) AND (Varicose OR “Venous Stasis” OR “Venous Hypertension” OR “Venous Ulcer” OR Stasis OR venous OR “varicose disease”)) OR “Leg Ulcer” OR “Leg Ulcers” OR “Leg Club” OR microvaricosity OR phlebarteriectasia OR phlebectasia OR phlebectasis OR “portal varix” OR “prevaricose syndrome” OR Prevaricosis OR “pyeloureter varix” OR “ulcus varicosum” OR “varicose complex” OR “varicose syndrome” OR varicosity OR “varix ulcer” OR “vein ectasia” OR “vein varicosis” OR venectasia OR “venous varicosis” OR “venous varix” OR “Venous Insufficiency” OR ((Insufficiencies OR Insufficiency OR incompetence) AND (“Varicose Veins” OR “Varicose Vein” OR “Vein, Varicose” OR “Veins, Varicose” OR Varix OR Varices OR Varicose OR Vein OR Veins OR Ulcer OR ulcers OR venous))) ) ) AND ( “Secondary Prevention” OR “Early Therapies” OR “Early Therapy” OR “Prevention Relapse” OR “Prevention, Secondary” OR “Preventions Relapse” OR “Preventions Secondary” OR “Relapse Prevention” OR “Relapse Preventions” OR “Secondary Preventions” OR “Therapies Early” OR “Therapy Early” OR “Stockings, Compression” OR “Compression Stocking” OR “Compression Stockings” OR “Elastic Stocking” OR “Elastic Stockings” OR “compression therapy” OR “compression therapies” OR Exercise OR “Activities Physical” OR “Activity Physical” OR Exercises OR “protective factors” OR protective* OR prevent OR preventive OR preventing OR “potential risk” OR “Self Care” OR “Care Self” OR “Self-Care” OR “self-management” OR “self treatment” OR “self-management” OR self-nurturance OR selfcare OR Selfmanagement OR selftreatment OR “self efficacy” OR “Management Self” OR “Patient Education as Topic” OR “Education Patient” OR “Patient Education” OR “Education of Patients” OR “Health Education” OR “Education Health” OR “Health Educators” OR Education OR Training OR “Educational Activities” OR “Activities Educational” OR “Activity Educational” OR “Educational Activity” OR Learning ) AND ( Recurrence OR recrudescence* OR relapse* OR secondary OR Recurrence* OR secondaries OR “Symptom Flare Up” OR “Exacerbation, Symptom” OR “Exaggeration, Symptom” OR “Flare Up, Symptom” OR “Flare Ups, Symptom” OR “Flare-up, Symptom” OR “Flare-ups, Symptom” OR “Flareup, Symptom” OR “Flareups, Symptom” OR “Flaring Up, Symptom” OR “Flaring Ups, Symptom” OR “Increase, Symptom” OR “Magnification, Symptom” OR “Symptom Exacerbation” OR “Symptom Exacerbations” OR “Symptom Exaggeration” OR “Symptom Exaggerations” OR “Symptom Flare Ups” OR “Symptom Flare-up” OR “Symptom Flare-ups” OR “Symptom Flareup” OR “Symptom Flareups” OR “Symptom Flaring Up” OR “Symptom Flaring Ups” OR “Symptom Increase” OR “Symptom Magnification” OR “Symptom Magnifications” OR “Symptom Worsening” OR “Worsening, Symptom” )
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**Figure 1** – CINAHL database search strategy. Niterói, RJ, Brazil, 2022

Source: Prepared by the authors, 2022.

Studies	Data extraction
Publication title	
Authors	
Country/Language/Year of publication	
Objective	
Study design	
Participants	
Context	
Self-care measures to prevent the recurrence of venous ulcers	

**Figure 2** – Data extraction instrument. Niterói, RJ, Brazil, 2022

Source: Prepared by the authors, 2022.

### Data extraction

Data extraction will be carried out from the selected materials to an Excel spreadsheet aiming at recording data considered relevant: publication title, authors, country where the study was conducted, year of publication, language, objective, study design, participants, context, and self-care measures to prevent the recurrence of venous ulcers (Figure 2). This tool may be modified during the process and featured in the final scoping review report. The authors of the articles will be contacted to request missing or additional data when necessary. In the end, the information extracted by the two independent reviewers will be compared, and any divergence will be resolved through discussions or with the participation of a third reviewer.

### Results presentation

After data collection, the self-care measures found will be presented in full narrative format

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and through flow diagrams, aligned with the proposed research question and the ultimate goal of identifying, characterizing, and summarizing the research evidence on the topic, including research gaps identified.

\*Paper extracted from the master thesis "Preparation and validation of an educational video for self-care in the prevention of venous ulcer recurrence", presented to the Fluminense Federal University, Niterói, Rio de Janeiro, Brazil.

### CONFLICT OF INTERESTS

The authors have declared that there is no conflict of interests.

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