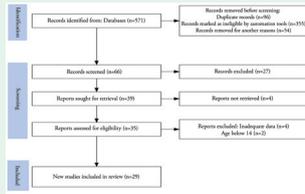


## SYSTEMATIC REVIEW

### Overview of hypertension in Saudi Arabia. A systematic review and meta-analysis



Prisma flow chart summarizes the search, screening and selection of the reviewed hypertensive articles.

Alshammari et al assess the prevalence, awareness, treatment, and control of hypertension of 29 studies with 278,873 individuals aged 14 to 100 years old in Saudi Arabia between 1990-2022. The prevalence of hypertension was high, with low awareness, treatment, and control rates among Saudis. Therefore, policymakers and healthcare providers must work harmoniously to promote health and to prevent, detect, and control hypertension early.

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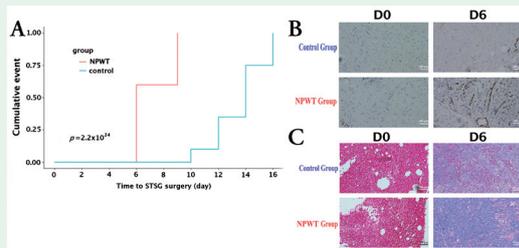
## ORIGINAL ARTICLES

### Physiological association of the breakpoint with the duration of hyperventilation

Sadiqa et al observe the relationship between body mass index and breath-holding time (BHT) as well as that between BHT and duration of hyperventilation (DOH) in young healthy adults aged 18-22 years. Physically healthy students of both genders were included. A total of 110 healthy subjects, of whom 9 were excluded because of technically incorrect spirometric manoeuvres. Therefore, for the data analysis, there were 101 healthy participants. A strong association was observed between BHT and DOH in all subjects in men and in women. Moreover, a nonsignificant weak inverse linear regression was found between the BMI and BHT of all subjects ( $\beta = -0.087, p = 0.38$ ), of men ( $\beta = -0.241, p = 0.11$ ), and of women ( $\beta = -0.092, p = 0.49$ ). No association was found between BMI and BHT. A strong positive association was observed between BHT and DOH in all healthy young people.

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### Negative pressure wound therapy (NPWT) is superior to conventional moist dressings in wound bed preparation for diabetic foot ulcers-a randomized controlled trial



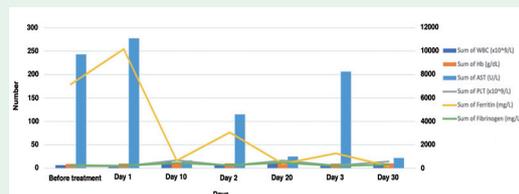
A Kaplan-Meier plot and histological analysis.

Wu et al compare the efficacy of negative pressure wound therapy (NPWT) and alginate dressings on wound bed preparation prior to split thickness skin graft (STSG) surgery, as well as to investigate the underlying mechanisms. Patients in the NPWT group had less time to STSG surgery than the control group. The patients in the NPWT group had prominently increased survival rates of skin graft, increased wound blood perfusion, and decreased NET formation in comparison with the control group. Negative pressure wound therapy is superior to conventional moist dressings in wound bed preparation prior to STSG surgery for patients with chronic DFUs.

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## CASE REPORT

### Macrophage activation syndrome induced by *Staphylococcus Epidermidis* in a pediatric patient with cystic fibrosis and familial Mediterranean fever



Therapeutic intervention and laboratory parameters.

Polat et al present an 8-year-old girl with cystic fibrosis (CF) and familial Mediterranean fever who developed macrophage activation syndrome (MAS) after contracting a *Staphylococcus epidermidis* infection. There was no accompanying abdominal pain, chest pain, or joint complaints. *Staphylococcus epidermidis* infections and autoinflammatory diseases may lead to the development of MAS in pediatric CF patients.

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