



Tishk
International University



TISHK INTERNATIONAL UNIVERSITY
FACULTY OF APPLIED SCIENCE
Physiotherapy Department

First Aid for Burn Injury & Diabetic

Autumn Semester 2023-2024

Course Name : **Basic Emergency Life Support**

Stage : 2 Lecture 3: **First Aid for Burn Injury & Diabetic**

Lecture: Dr. Soma Majedi

Treating a burn



Burns are tissue damage from hot liquids, the sun, flames, chemicals, electricity, steam and other causes.

- ✓ **Kitchen-related injuries** from hot drinks, soups and microwaved foods are common among **children.**
- ✓ **Major burns** need **emergency medical help.**
- ✓ **Minor burns** can usually be treated with **first aid.**

What are the Types of Burns?

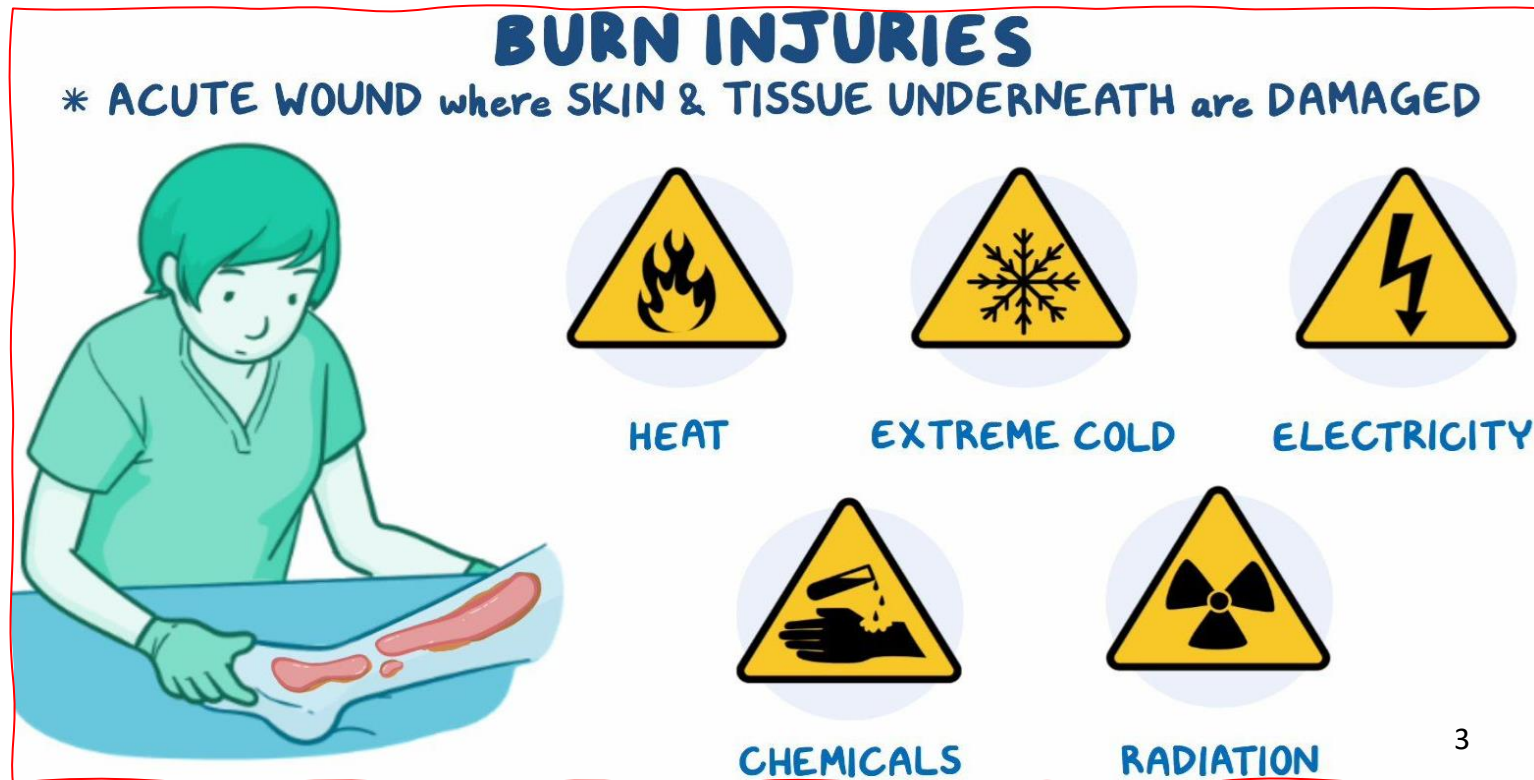
- Thermal Burns
- Chemical Burns
- Mechanical Burns
- Electrical Burns
- Radiation Burns
- Cold Burns



When to seek emergency care

Call 122 or seek immediate care for major burns, which:

- Are **deep**, involving **all** layers of the skin.
- Cause the **skin** to be **dry** and **leathery**.
- Cover the **hands, feet, face, groin, buttocks** or a **major joint**, or **encircles** an arm or leg.
- Are **larger** than **8 cm** in diameter.
- May appear **charred** or have **patches** of white, brown or black.
- Are accompanied by **smoke inhalation**
- Begin **swelling** very quickly

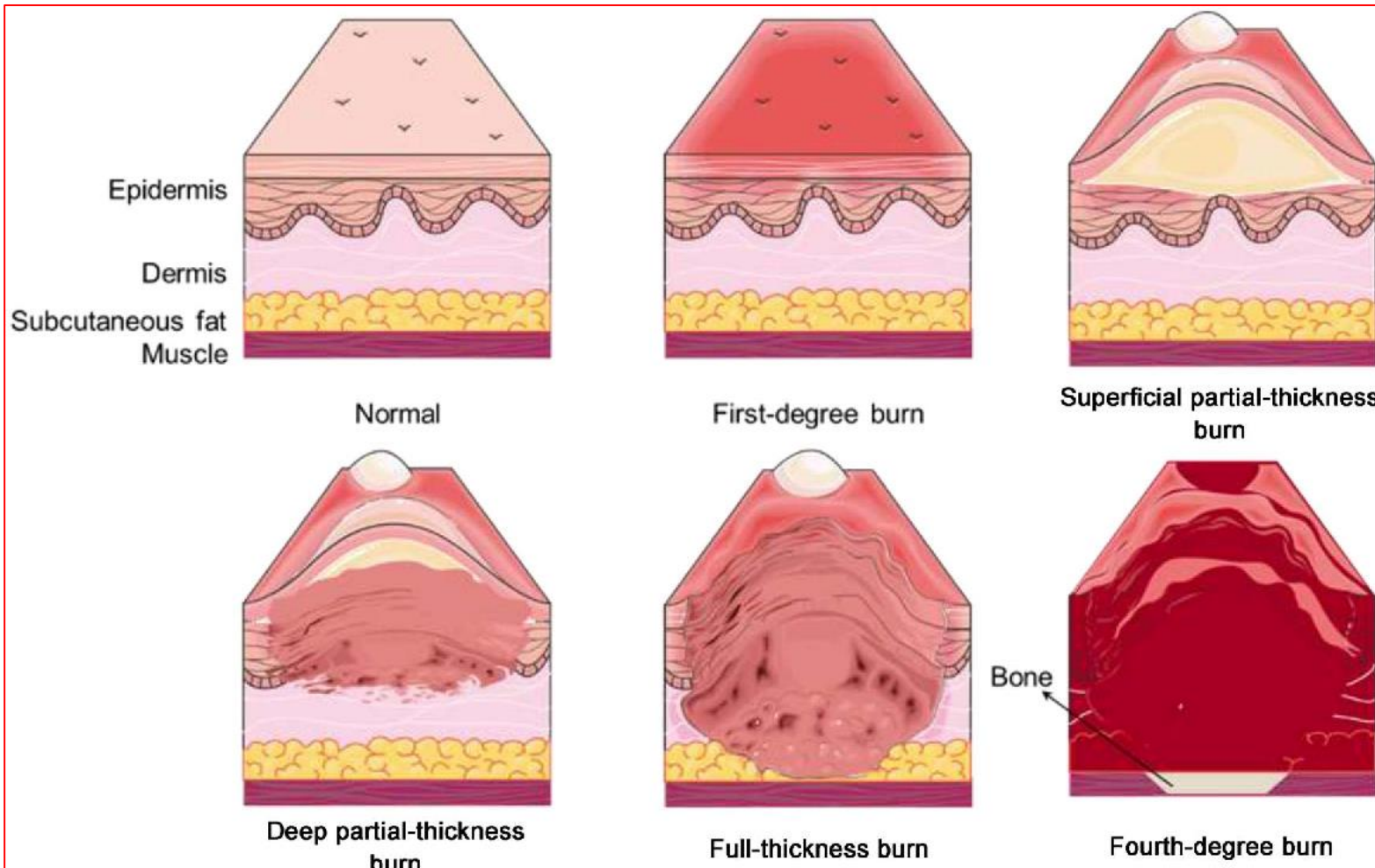


- ❖ **Electrical burns**, including those caused by **lightning**, and major **chemical burns** need **emergency medical care**.
- ❖ A **minor burn** might need emergency care if it affects the **eyes**, **mouth**, **hands** or **genital** areas.
- ❖ **Babies and older adults** might need emergency care for **minor burns** as well.



Diagnosis

By going to a doctor for burn treatment, he or she will **assess the severity** of burn by **examining the skin**.



Transferred to a burn center may be recommended:

- ✓ **Burn covers more than 10% of total body surface area**
- ✓ **Very deep**
- ✓ **On the face, feet or groin**

Treating major burns

Until emergency help arrives:

- ✓ Make sure the person is **not in contact** with the **source** of the **burn**.
- ✓ For **electrical burns**, make sure the **power** source is **off** before you **approach** the burned **person**.
- ✓ Make certain that the person burned is **breathing**. If needed, begin **rescue breathing**.
- ✓ **Remove jewelry, belts** and other **tight** items, especially from the burned area and the neck. Burned areas **swell** quickly.
- ✓ Loosely **cover** the area with **gauze** or a clean cloth.
- ✓ **Raise** the burned **area**. Lift the wound **above heart** level if possible.
- ✓ Watch for signs of **shock**. Signs and symptoms include **cool, clammy skin, weak pulse** and **shallow breathing**.

Treating minor burns

For minor burns:

- ✓ Hold the area under **cool** (not cold) running **water** for about **10 minutes**.
- ✓ Remove **rings** or other **tight items** from the **burned area** before **swelling**.
- ✓ Don't **break blisters**. Blisters help **protect** against **infection**.
- ✓ **After** the burn is **cooled**, apply a **lotion**, such as one with **aloe vera** to prevent **drying** and provides **relief**.
- ✓ Cover the burn **loosely** with a clean **bandage** to keep **air off** the area and **reduce pain** and **protects** blistered **skin**.
- ✓ If needed, take a **nonprescription pain reliever**.

Minor burn & Some Home Remedies

- ✓ Cool Water
- ✓ Cold Compress
- ✓ Use Antibiotic Ointments
- ✓ Apply Aloe Vera Gel
- ✓ Honey
- ✓ Silicone Foam Dressing

Stay Away From These Home Remedies for Burns

An infographic divided into two vertical panels. The left panel has a green background and is titled 'HOW TO TREAT MINOR BURNS AT HOME?'. It contains six circular illustrations: 1. A hand being held under a stream of blue water, labeled 'Cool Water'. 2. A hand with a white bandage wrapped around it, labeled 'Cold Compress'. 3. A hand with a small white ointment tube being applied to a red burn, labeled 'Use Antibiotic Ointments'. 4. A hand with a green aloe vera leaf being applied to a burn, labeled 'Apply Aloe Vera Gel'. 5. A hand with a yellow honey jar and a brush, labeled 'Honey'. The right panel has an orange background and is titled 'STAY AWAY FROM!'. It contains six circular illustrations: 1. A hand with a yellow butter pat being applied to a burn, labeled 'Butter'. 2. A hand with a yellow oil drop being applied to a burn, labeled 'Oils'. 3. A hand with a white toothpaste tube being applied to a burn, labeled 'Toothpaste'. 4. A hand with ice cubes being applied to a burn, labeled 'Ice'. 5. A hand with a cracked egg white being applied to a burn, labeled 'Egg Whites'.

- ✓ Butter
- ✓ Oils
- ✓ Toothpaste
- ✓ Ice
- ✓ Egg Whites

Burns can be classified by severity and damage

TYPES OF BURNS



1 FIRST DEGREE

Burn Known as "superficial burns" and do not cause much damage to the skin and only affect the outermost layer of the skin.



2 SECOND DEGREE

Burn Damage the top layer of skin. Get extremely red and sore and even causes blisters.



3 THIRD DEGREE

Burn Cause nerve damage, which causes disability to feel the pain from the burn



4 FOURTH DEGREE

Burn Deepest and most severe of burns. These burns destroy all layers of your skin, as well as your bones,



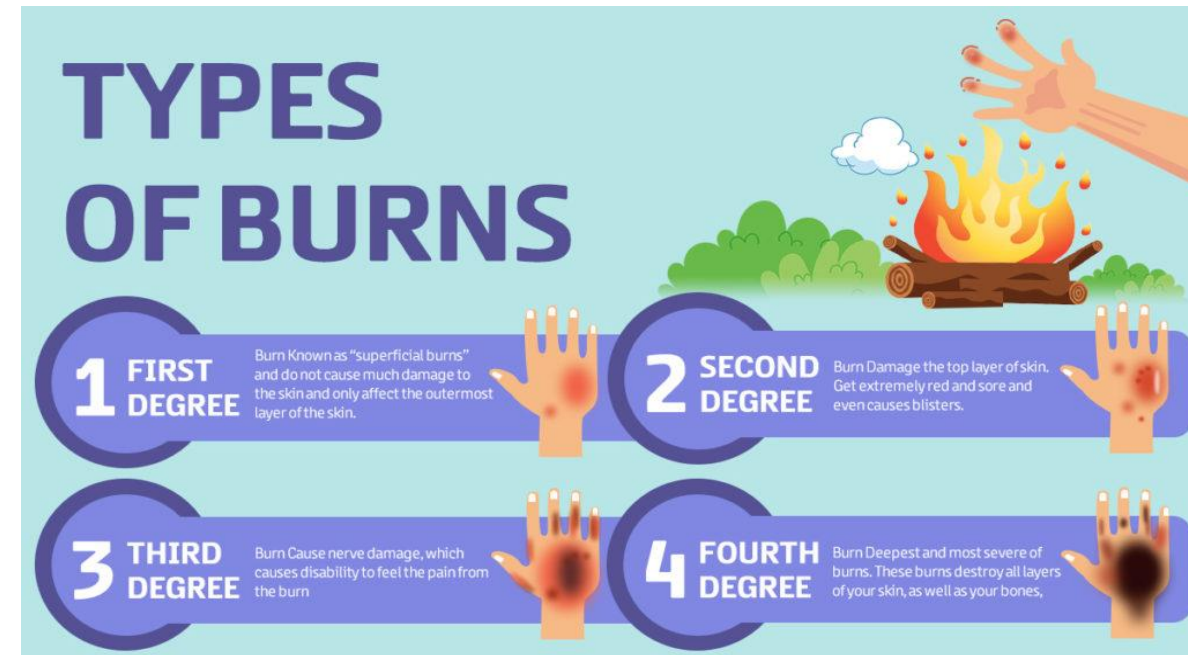
First-degree burns are commonly known as “**superficial burns**” and do not cause much damage to the skin and only affect the **outermost layer** of the skin.

- ✓ These burns do **not** even **cause blisters**.
- ✓ Some of the common **signs** of a **first-degree burn** are **redness, inflammation** and **slight peeling** of the skin.
- ✓ **First-degree burns** are also known as **minor burns** and can be treated with **home remedies**.
- ✓ It takes about **7 to 10 days** for the first-degree burns to **heal** without scarring.
- ✓ However, if the burn involves much of the **hands, feet, groin, face** or a **major joint**, then you must consult a **Doctor** immediately.



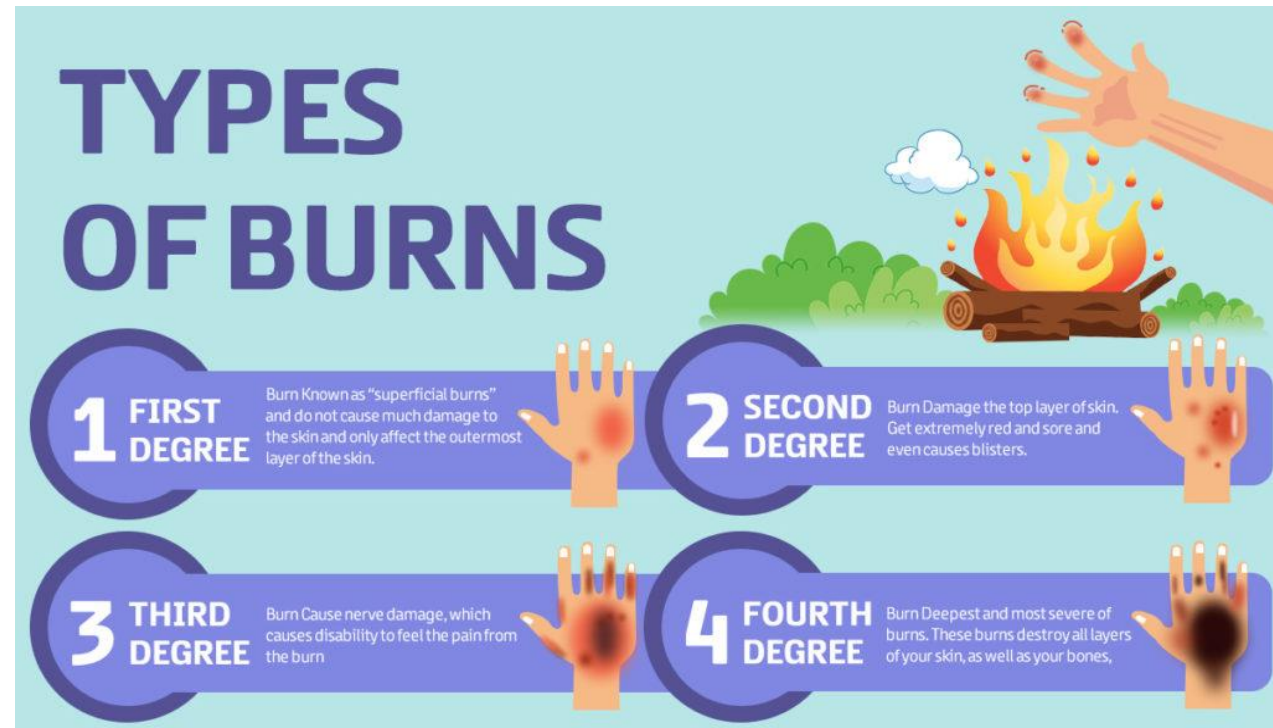
Second-degree burns are a bit dangerous as they **damage the top layer of skin**.

- ✓ This type of burn becomes **extremely red** and **sore** and even causes **blisters**.
- ✓ Usually, second-degree burns **heal** within **2 to 3 weeks** without scarring, but sometimes it can take more than three weeks to heal second-degree burns.
- ✓ Just like first-degree burns, second-degree burns can also be treated with **home remedies, over-the-counter** pain medications and antibiotic creams.
- ✓ However, if the burn affects a wide area such as **face, buttocks, groin, hands and feet**, then you must seek immediate medical attention.



Third-degree burns cause the **most damage** and are considered the **most severe burn**.

- ✓ These burns extend through **all the layers** of the **skin**.
- ✓ It is a myth that third-degree burns are **extremely painful**.
- ✓ However, the truth is that third-degree burns cause **nerve damage**, which causes **disability** to **feel** the **pain** from the burn.
- ✓ Third-degree burns should **not** be **self-treated** and should be attended by an experienced Doctor.
- ✓ While waiting for medical treatment, do **not** get **undressed** and make sure that your clothes are not stuck to the burn.






Fourth-Degree Burn is the deepest and most severe of burns.

✓ They're potentially life-threatening.

✓ These burns **destroy all layers of skin**, as well as **bones, muscles, and tendons**.

An infographic titled "TYPES OF BURNS" is centered on the page. At the top right, there is an illustration of a hand being held over a campfire. The infographic is divided into four horizontal sections, each representing a degree of burn. Each section includes a degree number in a large font, the degree name, a brief description of the burn's effects, and a small illustration of a hand showing the corresponding burn symptoms. The background of the infographic is a light blue color.

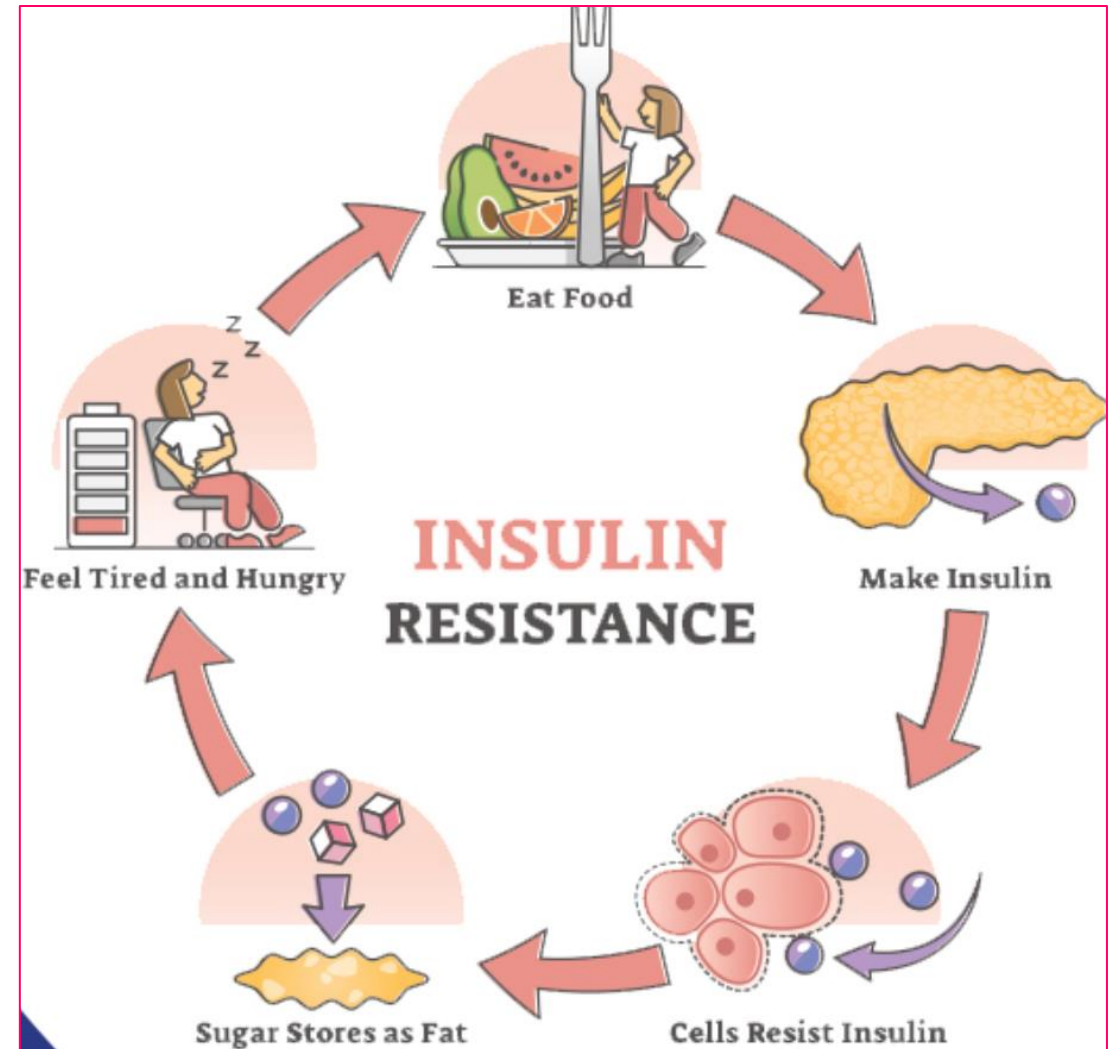
TYPES OF BURNS

1 FIRST DEGREE	Burn Known as "superficial burns" and do not cause much damage to the skin and only affect the outermost layer of the skin.	
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What is diabetes?

❖ Diabetes is a medical condition that affects **blood sugar levels**.

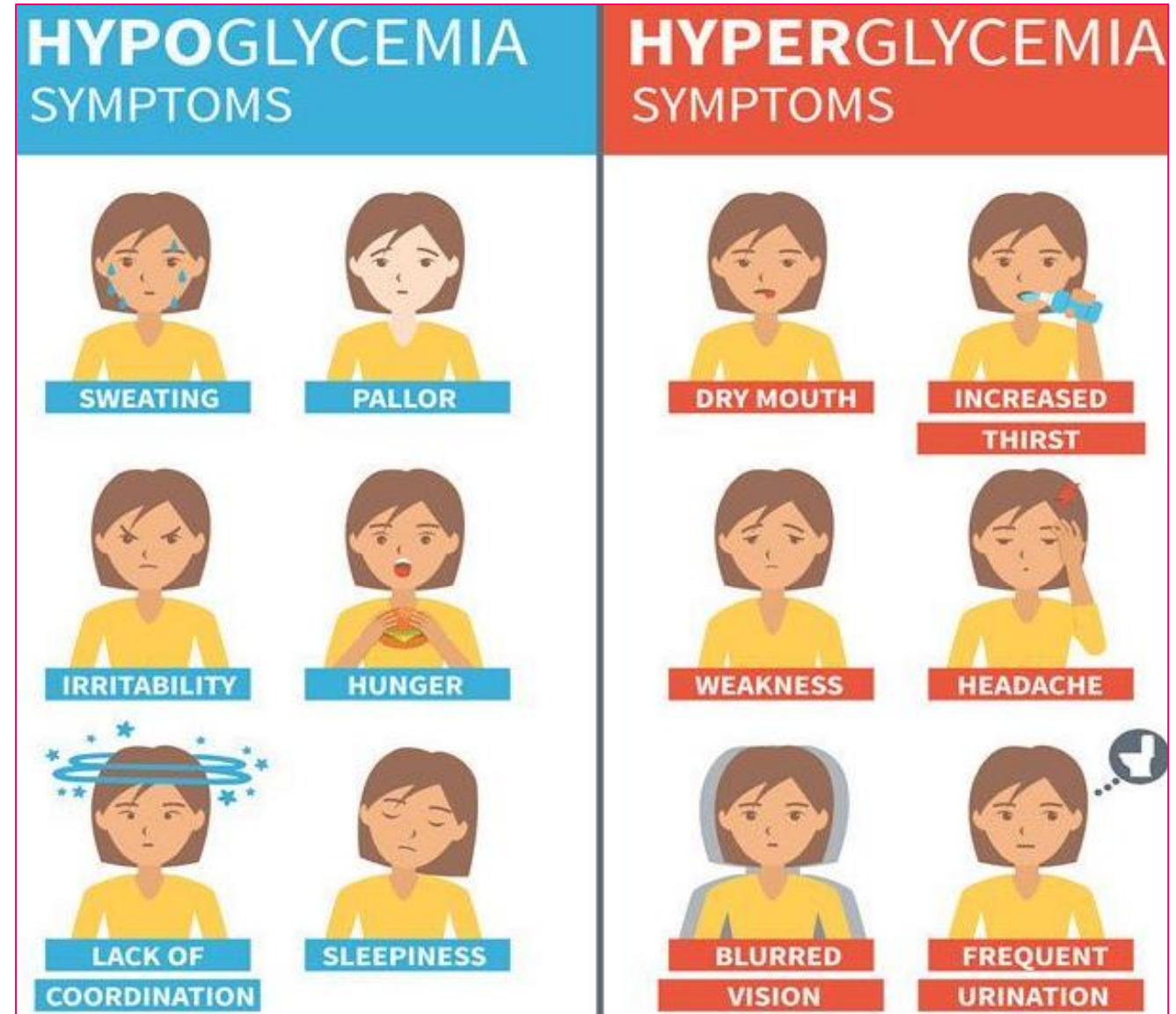
- ✓ Normally, people's bodies maintain the ideal blood sugar levels automatically.
- ✓ When a person has diabetes, their body fails to maintain the blood sugar balance, so they need to manage it through diet, tablets or insulin injections.
- ✓ Sometimes, a person who has diabetes can suffer diabetic emergencies, which require first aid.



What are the signs and symptoms of a diabetic emergency?

Signs and symptoms vary, but common ones include:

- ✓ hunger
- ✓ clammy skin
- ✓ profuse sweating
- ✓ drowsiness or confusion
- ✓ weakness or feeling faint
- ✓ sudden loss of responsiveness



What happens in a diabetic emergency?

In most cases, the person's blood sugar levels become too low (**hypoglycemia**).


What should I give them to eat or drink?

Give them sugary drinks such as cola, lemonade, fruit juice and isotonic sports drinks, and sweet foods such as jellybeans, chocolate and sugar cubes.



What happens in a diabetic emergency?

- ✓ Avoid giving them a diet drink, as it won't have any sugar in it
- ✓ Some people have high blood sugar levels, but there is no harm in giving them a sweet drink or food.

An illustration showing a woman with long red hair, wearing a green t-shirt and blue jeans, standing and offering a small yellow container of snacks to a man sitting in a white chair. The man is wearing a grey t-shirt and black pants. The background is white with a green and white striped vertical bar on the right side.

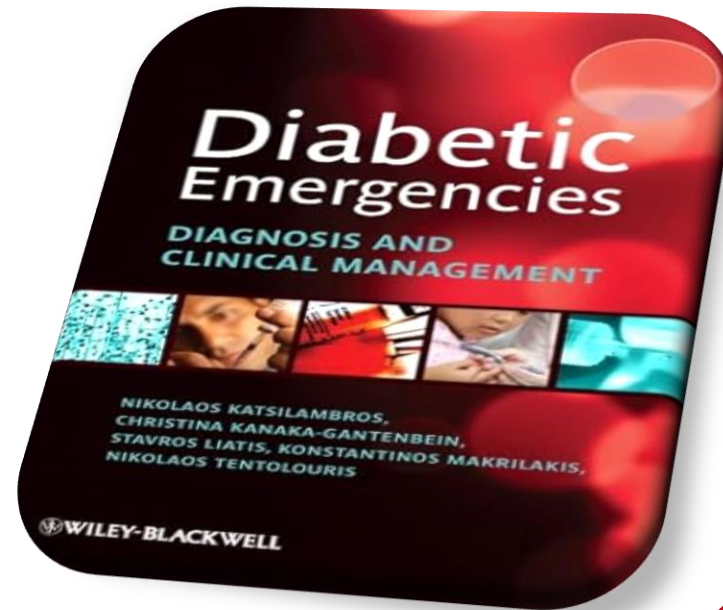
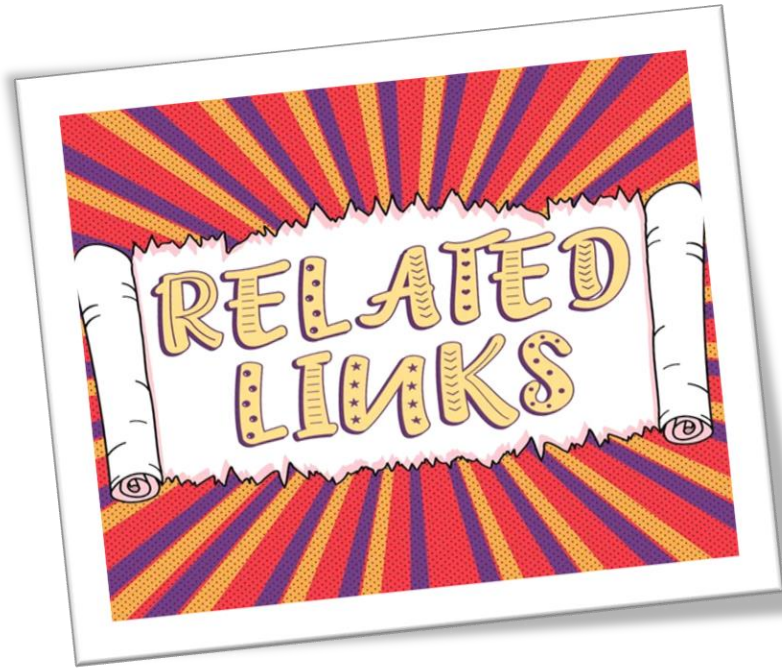
WHAT TO DO

- **SIT THEM DOWN**
- **HELP THEM TO TAKE GLUCOSE GEL OR TABLETS**
- **OR GIVE THEM AN 150ML GLASS OF FRUIT JUICE OR FIZZY DRINK (NON DIET) OR 3 JELLY BABIES**

How will I know if this is a long-term condition for the person?

- ✓ They should be able to tell you, so listen to what they say.
- ✓ They may have some form of identification on them (e.g., a card, bracelet or necklace) that will give you information about their condition, or they may be carrying an insulin pen, glucose gel or glucose tablets.





- The Essential Burn Unit Handbook 2nd Edition, Jeffrey Roth, William Hughes, 2015.
- <https://www.youtube.com/watch?app=desktop&v=ury1GMvbUNw>
- <https://www.firstaid.co.uk/first-aid-for-burns-how-to-treat-burns-at-home/>
- <https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.redcross.org.uk%2Ffirst-aid%2Flearn-first-aid%2Fdiabetic-emergency&psig=AOvVaw1yIOr46QF7zVtV1iS9x1Qd&ust=1698694436276000&source=images&cd=vfe&opi=89978449&ved=0CBQQjhxqFwoTCOjmyo2AnIIDFQAAAAAdAAAAABAQ>
- <https://www.youtube.com/watch?app=desktop&v=L06DNMRcy98>
- Diabetic Emergencies: Diagnosis and Clinical Management 2nd Edition, 2011, Christina Kanaka-Gantenbein, Stavros Liatis, Nikolaos Katsilambros

