BALANCETEST

SELF-TEST FOR ANALYZING FATTY ACIDS IN THE BLOOD

PRODUCT HIGHLIGHTS

Zinzino's BalanceTest is an easy self-test for analyzing the fatty acids found in capillary blood obtained from a fingertip using the Dried Blood Spot (DBS) technique. A DBS is scientifically proven to be as accurate as a venous blood sample when fatty acids are to be analyzed. All it requires is a few drops of blood from the fingertip on a Whatman® filter paper and it takes less than a minute to complete.

VITAS Analytical Services in Norway will anonymously analyze the percentage content of 11 fatty acids, which together represent approximately 98% of the fatty acids in the blood and the values reflect your diet for the last 120 days, which is the lifetime of blood cells. The result is then displayed, after about 10-20 days, on the zinzinotest.com website.

KEY BENEFITS

- **Easy-to-use dried blood spot self-test**
- **Measures 11 fatty acids in your blood**
- **Provides data about your Omega-6:3 Balance**

HOW DOES IT WORK?

You should take your first* BalanceTest, and then start at once to take your daily dosage of Zinzino Balance products. Continue to take the Balance products as recommended for 120 days, and then take your second BalanceTest to find out how your fatty acid profile has changed.

*Should your initial results show an Omega-6:3 Balance of 3:1 or better, then you should contact Zinzino since you do not need the Balance product.

WHAT WE MEASURE

The test measures 11 fatty acids, including saturated, monounsaturated (Omega-9) and polyunsaturated (Omega-6 and Omega-3) fatty acids. Individual fatty acid values are shown in the table and expressed as percentages of the total fatty acids measured. For comparison in the table, the average range for each fatty acid (based on data obtained from a large group of balanced people) is presented as Target Value. The following fatty acids are measured:

Palmitic acid, C16:0, saturated fat

Stearic acid, C18:0, saturated fat

Oleic acid, C18:1, Omega-9

Linoleic acid, C18:2, Omega-6

Alpha-linolenic acid, C18:3, Omega-3

Gamma-linolenic acid, C18:3, Omega-6

Dihomo-gamma-linolenic acid, C20:3, Omega-6

Arachidonic acid (AA), C20:4, Omega-6

Eicosapentaenoic acid (EPA), C20:5, Omega-3

Docosapentaenoic acid (DPA), C22:5, Omega-3

Docosahexaenoic acid (DHA), C22:6, Omega-3

INDEPENDENT LABORATORY

Your test is analyzed by an independent and GMP-certified laboratory. The fact that Vitas is GMP-certified means that they follow good manufacturing practices. They are a contract laboratory for chemical analysis with 25 years of experience, providing high-quality chromatographic analysis based on cutting-edge knowledge and technology. Included with the blood test is a BalanceTest ID that only you can see. Neither the lab, nor Zinzino knows who submitted the test. At zinzinotest.com your results will be displayed when you enter your BalanceTest ID. If you have completed the questionnaire, you will have access to the complete analysis. If you have not completed the questionnaire, you will see your balance score only.

CERTIFIED TEST KIT

The Zinzino Dried Blood Spot Test is certified to comply with the European regulation 98/79/EB on in vitro diagnostic (IVD) medical devices. This means the test and all its components are in compliance with applicable laws and regulations, and so the Kit has the CE mark on it.

THIS IS HOW YOUR RESULTS ARE CALCULATED

11 fatty acids are analyzed and the total sum of their amounts is considered 100%. For the following 6 values, we use 7 of the fatty acids. The analyzed amount of each of the 7 fatty acids is calculated as a percentage out of the 100%.

1. Omega-3 Eicosapentaenoic acid (EPA)
2. Omega-3 Docosahexaenoic acid (DHA)
3. Omega-3 Docosapentaenoic acid (DPA)
4. Omega-6 Arachidonic acid (AA)
5. Omega-6 Dihomo-gamma-linolenic acid (DGLA)
6. Saturated fat, Palmitic acid (PA)
7. Saturated fat, Stearic acid (SA)

PROTECTION VALUE

First, the following 3 recognized health indicators are calculated:

1. The value for the Omega-6 ratio is calculated like this: (DGLA+AA) * 100 / (DGLA+AA+EPA+DPA+DHA)
2. The value for the Omega-3 level is the sum of EPA+DHA
3. The Balance value is calculated as Omega-6 (AA) / Omega-3 (EPA)

Each indicator value is given the same weight in a second calculation and assigned a value between 0 and 100, which is then divided by 3 to get the Protection Value that ideally should be above 90. This does not tell anything about the health status of the person, only the fatty acid protection level.

Note! EPA and DHA values have a high impact on all the calculations and if EPA and DHA percentages are low, then as a result very low or even zero Protection Values are not uncommon.

OMEGA-3 INDEX

The Omega-3 Index is the summary of the percentage values for the two marine Omega-3 fatty acids EPA and DHA. The ideal combined level is at least 8%, but higher values like 10% are desirable.

Omega-3's have many benefits because they are the primary building blocks in your cells. EPA is dominant in the blood, muscles and tissues, while DHA is dominant in the brain, sperm and eyes.

OMEGA-6:3 BALANCE

The balance is calculated by dividing the percent value of AA with the percent value of EPA (AA / EPA), which is then expressed as a Balance value, for example 3:1. The Omega-6:3 Balance in the body should preferably be below 3:1.

If this ratio is above 3:1, you will benefit from a change in your diet. A low balance of Omega-6 and Omega-3 is important for maintaining normal cell and tissue development (homeostasis) and help the body control inflammation.

CELL MEMBRANE FLUIDITY

Fluidity is calculated by dividing the percent value of the two saturated fats with the percent value of the two Omega-3's. The fluidity value is thus defined as (PA+SA) / (EPA+DHA), and the result is expressed as a fluidity index, for example 3:1. If the fluidity value is below 4:1, it shows that there is sufficient fluidity in cell membranes.

The more saturated the fats are in a membrane, the more rigid is the membrane. Conversely, the more polyunsaturated the fats are in a membrane, the more fluid is the membrane. Cell membrane composition and structural architecture is critical for the health of the cells and hence the body. On the one hand, the membrane needs to be rigid enough to provide sound cellular structural architecture. On the other hand, the membrane needs to be fluid enough to allow nutrients in and waste products out.

MENTAL STRENGTH
This is calculated by dividing the percent value of AA with the sum of the percent values of EPA and DHA, i.e. the Mental Strength value = AA / (EPA+DHA). The result is expressed as a mental strength value, for example 1:1. The value should be below 1:1 for sufficient and balanced supply of both Omega-6 and Omega-3 fatty acids to the brain and the nervous system.

Cognitive performance improves with increased consumption of marine Omega-3's EPA and DHA. Childhood and old age are two critical and vulnerable stages and Omega-3 deficiency is associated with learning and memory deficits, as well as mood problems.

ARACHIDONIC ACID (AA) INDEX
The AA Index shows the measured value of the Omega-6 fatty acid Arachidonic acid (AA) as a percentage out of the total fatty acids measured. Good average values are in the range of 6.5 to 9.5% with an optimum target value of 8.3%.

Arachidonic acid (AA) is the most important Omega-6 fatty acid for the body. It is the starting point for the production of local tissue hormones triggered by Omega-6, such as prostaglandins, thromboxanes and leukotrienes, all with various functions. The overall function is, however, to protect the body from damage by limiting the progression of the infection or the impact of the injury.

TAKING THE TEST

1. Zinzino Test is an approved in vitro diagnostics product for personal blood sample collection at home.

- First wash your hands with soap and rinse well with warm water and dry them.

2. Take out the **sample card** from the paper envelope.

Save the envelope for later use.

Tear off the **SAVE** part on the sample card and take a picture of the test ID. You can **only** see **your** test result with your anonymous test ID. Place the card with the two circles facing up on the table.

3. Stimulate blood flow by making big circles with your arm or shaking the hand downwards for 20 seconds.

4. Take out the single-use lancet. Remove the transparent safety cap and the lancet is ready to use.

Use the alcohol wipe to clean the tip of your finger (middle finger is recommended).

Place the lancet against the **lower** part of the fingertip facing the collection paper on the table. Push the top of the lancet towards the finger until you hear a click. The lancet will automatically make a small prick in the finger.

5. Do not touch the filter paper with your fingers.

6. Fill one circle at a time with blood. Squeeze your finger gently and wait for a drop of blood to fall inside the circle by itself. If one drop of blood does not cover the circle, allow one more drop from your finger to drip immediately.

Leave the **sample card** in a horizontal position at room temperature for at least 10 minutes for the samples to dry well.

7. Insert the **sample card** back into the paper envelope. Then place the paper envelope into the metal bag and **close it**.

IMPORTANT: Do not remove desiccant packet inside the metal bag.

8. Place the closed metal bag into the white envelope. Select one of the address labels to where you want to send the test and affix it on the white envelope. **NOTE!** You **must** put the correct amount of postage stamps on the envelope before you put in the mail box.

Register your test code on **www.zinzinotest.com**. This is the web page where you can see your test result later. It takes 10-20 days until your result is ready.

IMPORTANT: Keep the **SAVE** part of the card. You can **only** see **your** test result with your anonymous test ID.

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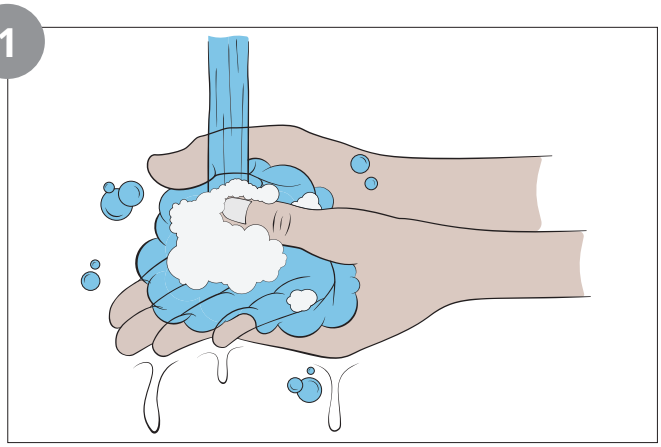

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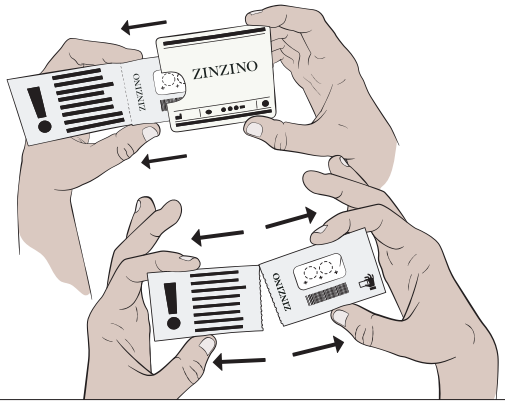

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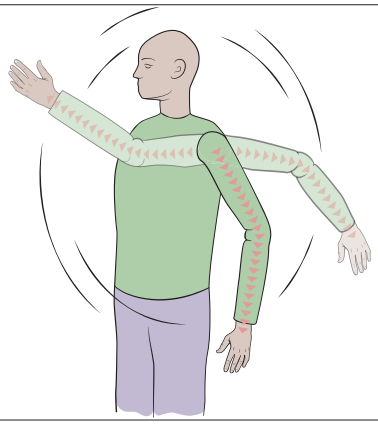

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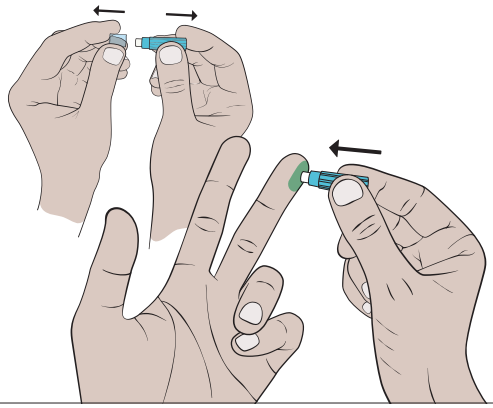

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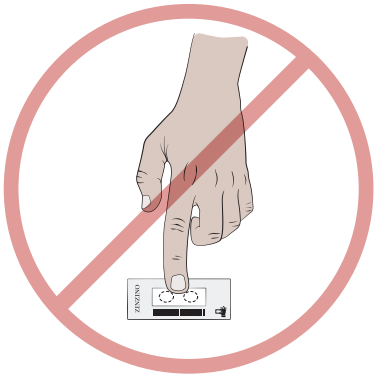

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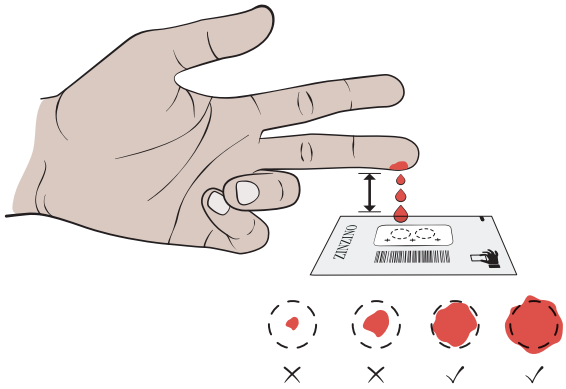

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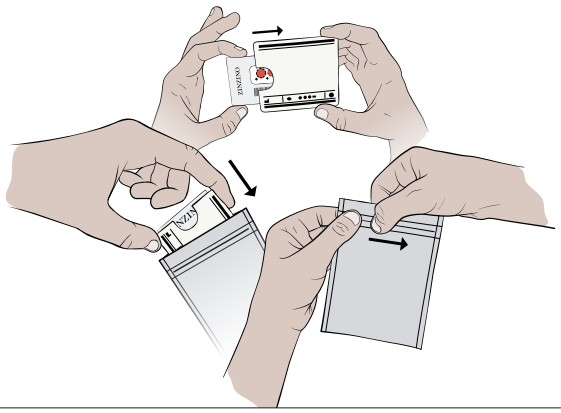

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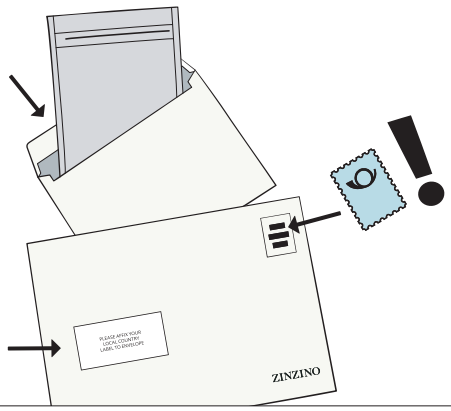

BALANCETEST

分析血液中脂肪酸的自我檢測

有關 BALANCETEST 特色

Zinzino 的 BalanceTest 是一種簡單的自我檢測，透過使用乾血斑 (DBS) 技術分析從指尖採集的毛細血管血液中分析發現的脂肪酸。 科學證明顯示，在分析脂肪酸時，DBS 與靜脈血樣一樣準確。只需在 Whatman ® 濾紙上從指尖滴幾滴血液，不到一分鐘即可完成。

挪威的 VITAS Analytical Services 將以不記名方式分析 11 種脂肪酸的百分比含量，其中共同代表了血液中大約 98% 的脂肪酸，這些值反映了您過去 120 天的飲食，亦即血細胞的生命週期。大約 10-20 天後，結果會顯示於 zinzinotest.com 網站。

主要好處

- **簡單易用的乾血斑自檢**
- **測量血液中的 11 種脂肪酸**
- **提供有關 Omega-6:3 平衡的數據**

如何進行?

您應該先做* BalanceTest，然後立即開始每天使用 Zinzino Balance 產品。繼續按照建議 使 用 Balance 產品 120 天， 然後進行第二次 BalanceTest, 了解您體內脂肪酸的變化。
*如果您起初的結果顯示 Omega-6:3 Balance 為 3:1 或更佳，那麼您應該聯絡 Zinzino，因為您並不需要 Balance 產品。

我們測量什麼
此測試測量 11 種脂肪酸，包括飽和、單不飽和 (Omega-9) 和多不飽和 (Omega-6 和 Omega-3) 脂肪酸。單個脂肪酸值顯示在表中，並顯示所測量總脂肪酸的百分比。為了在表中進行比較，每種脂肪酸的平均範圍 (基於從一大均衡人群組別中獲得的數據) 顯示為目標值。測量以下脂肪酸:

棕櫚酸，*C16:0*，飽和脂肪

硬脂酸，*C18:0*，飽和脂肪

油酸，*C18:1*，*Omega-9*

亞油酸，*C18:2*，*Omega-6*

α-亞麻酸，*C18:3*，*Omega-3*

γ-亞麻酸，*C18:3*，*Omega-6*

二高-γ-亞麻酸，*C20:3*，*Omega-6*

花生四烯酸 *(AA)*，*C20:4*，*Omega-6*

二十碳五烯酸 *(EPA)*，*C20:5*，*Omega-3*

二十二碳五烯酸 *(DPA)*，*C22:5*，*Omega-3*

二十二碳六烯酸 *(DHA)*、*C22:6*、*Omega-3*

獨立實驗室
您的測試由經過 GMP 認證的獨立實驗室進行分析。Vitas 獲得 GMP 認證，表示他們遵循良好的生產規範。他們是擁有 25 年經驗的化學分析合約實驗室，根據尖端知識和技術的高質量色譜提供分析工作。血液測試中包含只有您才能看到的 BalanceTest ID。實驗室和 Zinzino 都不知道提交測試者的身份。在 zinzinotest.com 上，當您輸入 BalanceTest ID 時，即會顯示您的結果。完成問卷調查，您便可以讀取完整的分析內容。如果您沒有完成問卷，只會看到您的平衡分數。

認證測試套件
Zinzino 乾血斑測試經認證符合 關於體外診斷 (IVD) 醫療設備的歐洲法規 98/79/EB。這表示測試及其所有組件都符合適用的法律和法規，因此套件上帶有 CE 標記。

這就是您的結果的計算方式
11 種脂肪酸經過分析，它們的總量被認為是 100%。對於以下 6 個值，我們使用了 7 個脂肪酸。7 種脂肪酸中每一種的分析量計算為 100% 中的百分比。

1. Omega-3 二十碳五烯酸 (EPA)
2. Omega-3 二十二碳六烯酸 (DHA)
3. Omega-3 二十二碳五烯酸 (DPA)
4. Omega-6 花生四烯酸 (AA)
5. Omega-6 二高-γ-亞麻酸 (DGLA)
6. 飽和脂肪、棕櫚酸 (PA)
7. 飽和脂肪、硬脂酸 (SA)

保護價值

首先計算以下3個公認的健康指標:

1. Omega-6 比率的值計算如下:
(DGLA+AA) * 100 / (DGLA+AA+EPA+DPA+DHA)

2. Omega-3 水平的值是 EPA+DHA 的總和

3. 平衡值計算為 Omega-6 (AA) / Omega-3 (EPA)

每個指標值在第二次計算中被賦予相同的權重，並分配一個介於 0 和 100 之間的值，然後除以 3 以獲得理想情況下應高於 90 的保護值。這並不能說明人的健康狀況，只說明脂肪酸的保護水平。

注意! EPA 和 DHA 值對所有計算都有很大影響，如果 EPA 和 DHA 百分比很低，則保護值非常低甚至為零的情況會很常見。

OMEGA-3 指數
Omega-3 指數是兩種海洋 Omega-3 脂肪酸 EPA 和 DHA 百分比值的總結。理想的組合水平至少為 8%，但需要更高的值，例如 10%。

Omega-3 有很多好處，因為它們是細胞的主要組成部分。EPA 在血液、肌肉和組織中佔主導地位，而 DHA 在大腦、精子和眼睛中佔主導地位。

OMEGA-6:3 平衡
此平衡的計算方法是將 AA 的百分比值除以 EPA 的百分比值 (AA / EPA)，然後顯示為平衡值，例如 3:1。體內的 Omega-6:3 平衡最好低於 3:1。

如果此比例高於 3:1，您便應改變飲食，並會從中得到好處。Omega-6 和 Omega-3 的低平衡對於維持正常的細胞和組織發育 (體內平衡) 和幫助身體控制炎症很重要。

細胞膜流動性
流動性的計算方法是將兩種飽和脂肪的百分比值除以兩種 Omega-3 的百分比值。流動性值因此定義為 (PA+SA) / (EPA+DHA)，結果以流動性指數顯示，例如3:1。如果流動性值低於4:1，說明細胞膜有足夠的流動性。

膜中的脂肪越飽和，膜就越硬。相反，膜中的多不飽和脂肪越多，膜的流動性就越強。細胞膜組成和結構框架對細胞的健康以及身體的健康非常重要。一方面，膜 需要足夠硬度以提供良好的蜂窩結構框架。另一方面，膜亦需要有足夠的流動性，以允許營養物質進入和廢物排出。

心理健康
這是通過將 AA 的百分比值除以 EPA 和 DHA 的百分比值的總和來計算的，即精神力量值 = AA / (EPA+DHA)。結果以心理 強度值顯示，例如 1:1。此值應低於 1:1，以便為大腦和神經系統提供充足和均衡的 Omega-6 和 Omega-3 脂肪酸。

認知能力會隨著海洋 Omega-3 的 EPA 和 DHA 攝入量的增加而得到改善。童年和老年是兩個關鍵和脆弱的階段，Omega-3 缺乏與學習和記憶缺陷以及情緒問題有關。

花生四烯酸 (AA) 指數
AA 指數顯示了 Omega-6 脂肪酸花生四烯酸 (AA) 的測量值，作為測量的總脂肪酸的百分比。良好的平均值在 6.5% 到 9.5% 的範圍內，最佳目標值為 8.3%。

花生四烯酸 (AA) 是人體最重要的 Omega-6 脂肪酸。它是產生由 Omega-6 引發的局部組織激素的起點，如前列腺素、血栓素和白三烯，所有這些都具有各種功能。然而，整體功能是通過限制感染的進展或傷害的影響來保護身體免受損害。

進行測試

1. 聖希諾平衡測試是經過批准、並用於家中進行個人血樣採集的體外診斷產品。**- 首先用肥皂洗手，然後用溫水沖洗乾淨並擦乾。**

2. 從紙質封套中取出**樣本卡片**。保存紙質封套 以供後續使用。撕下樣品卡片上的 **“SAVE(保存)”** 部分，並拍張 Test ID 的照片。您只能使用您的個人 Test ID 查看您的測試結果。將樣本卡放在桌上，有 兩個圓圈的那一面朝上。

3. 手臂劃大圈或手向下抖動20 秒，**以刺激血液流動**。

4. 將一次性刺血針取出。除去透明安全蓋，刺血針即可使用。 用酒精紙巾清潔指尖（建議使用中指）。面向桌上的採集紙，將刺血針放在指尖**後半部**的位置。將刺血針的頂部推向手指，直到聽到喀噠聲。刺血針會自動在手指上刺一下。

5. 請勿用手觸摸濾紙圈。

6. 將血一次填入一個圓圈中。輕輕擠壓手指，等待一滴血自行滴入圓圈內。如果一滴血不能蓋住整個圓圈，請立即從手指再滴一滴血。將**樣本卡片**在室溫下水平放置至少 10 分鐘， 以使樣本充分乾燥。

7. 將**樣本卡片**重新插入紙質封套。然後將紙質封套放入 鋁箔袋中**並合上**。 **重要提示:** 請勿去除鋁箔袋內的干燥袋。

8. 將密閉的鋁箔袋放入白色信封中。選擇一個你希望將測試發送到的地址標籤紙，並將它貼在白色信封上。**注意!** 在放入信箱之前，**必須**在信封上貼正確面值 的郵票。

上網並在 **www.zinzinotest.com** 上登記您的 檢測編碼。這是您以後可以看到檢測結果的網頁。 您需要等待 10-20 天的時間才能得到結果。 **重要提示:** 保留卡片的 “SAVE(保存)” 部分。 您只能使用 個人 Test ID 在互聯網上查看檢測結果。

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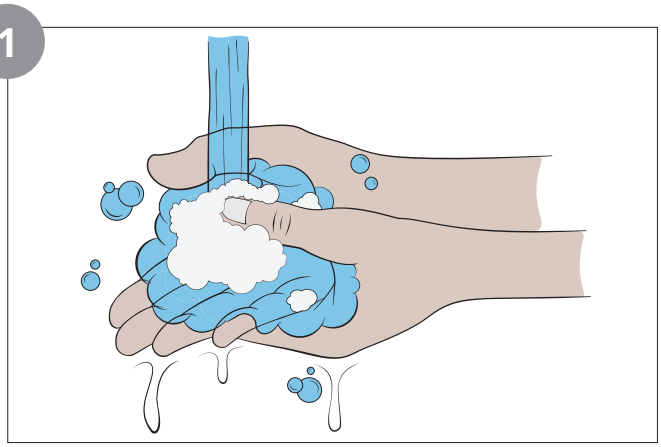

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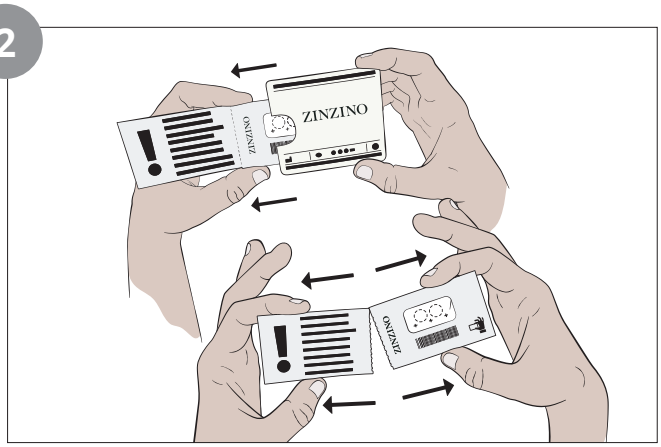

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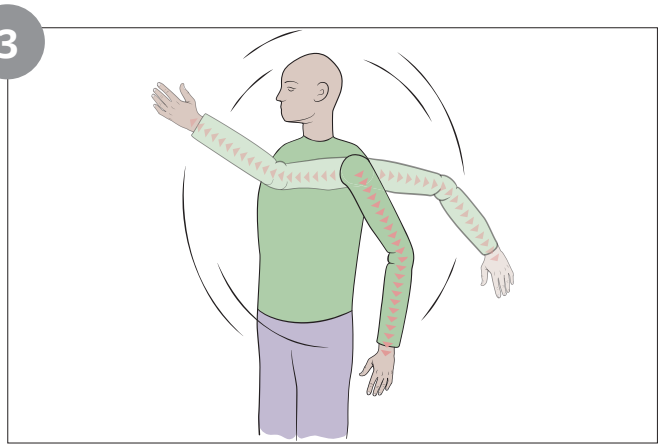

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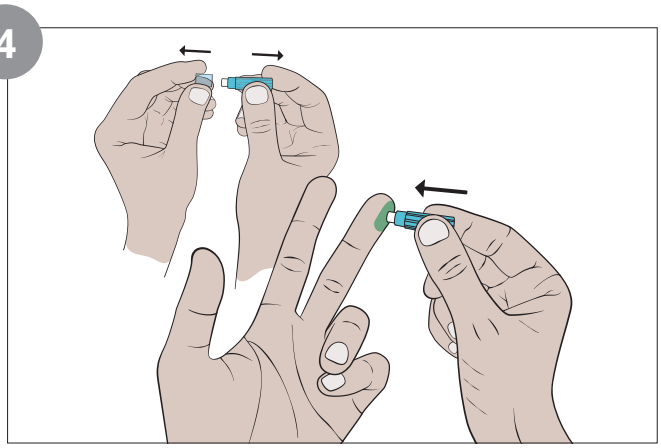

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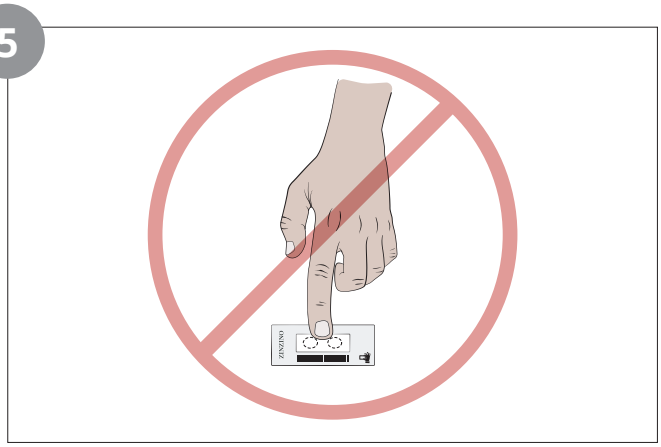

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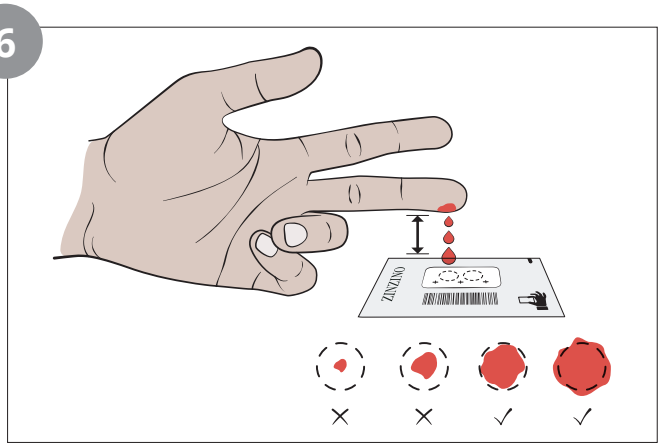

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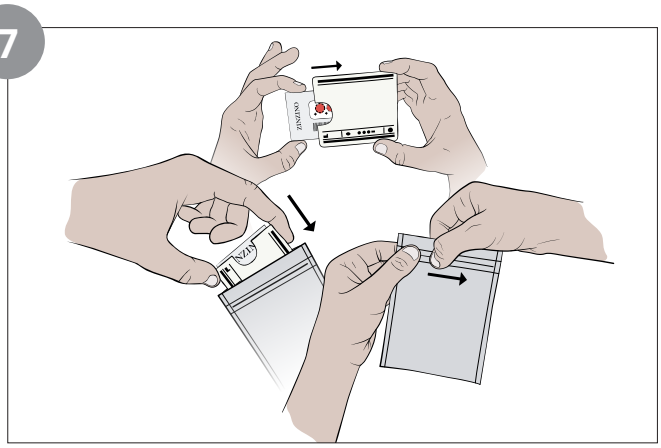

8