# Team training


HTVista
By HTVET

# Non-Invasive Cancer Detection for Lumps & Bumps in Dogs

HT Vista helps veterinary teams 'rule out' cancer without invasive procedures and 'rule in' malignancy when results indicate.

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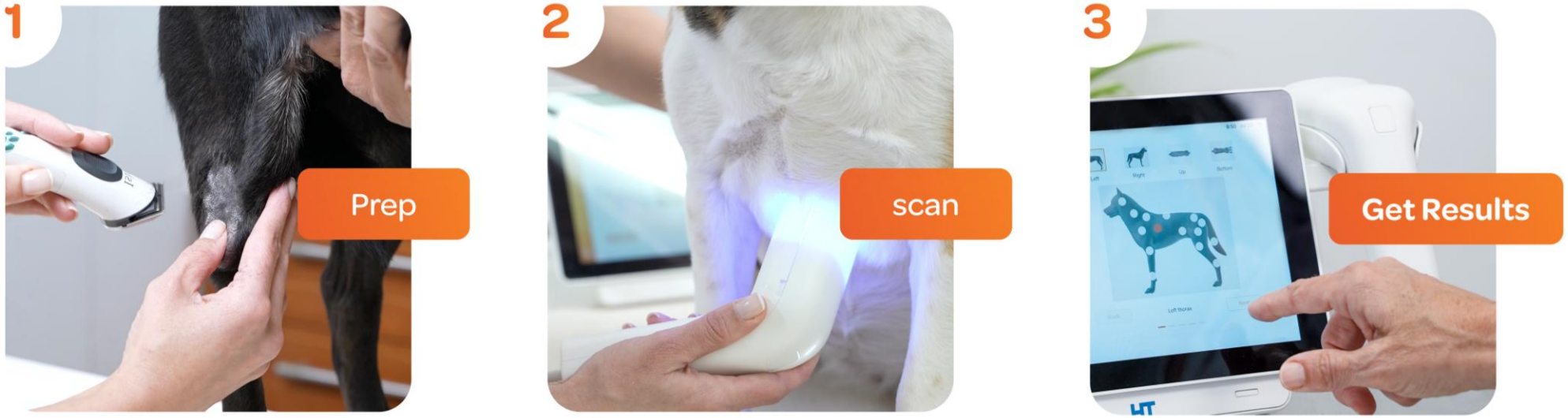
# The Process



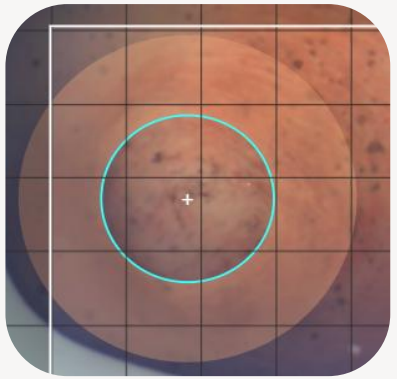

3 quick steps

# SCANNING GUIDE

## 4 key steps

CLIPPING

SCANNING



MARKING

ANALYZING

for a high-quality scan

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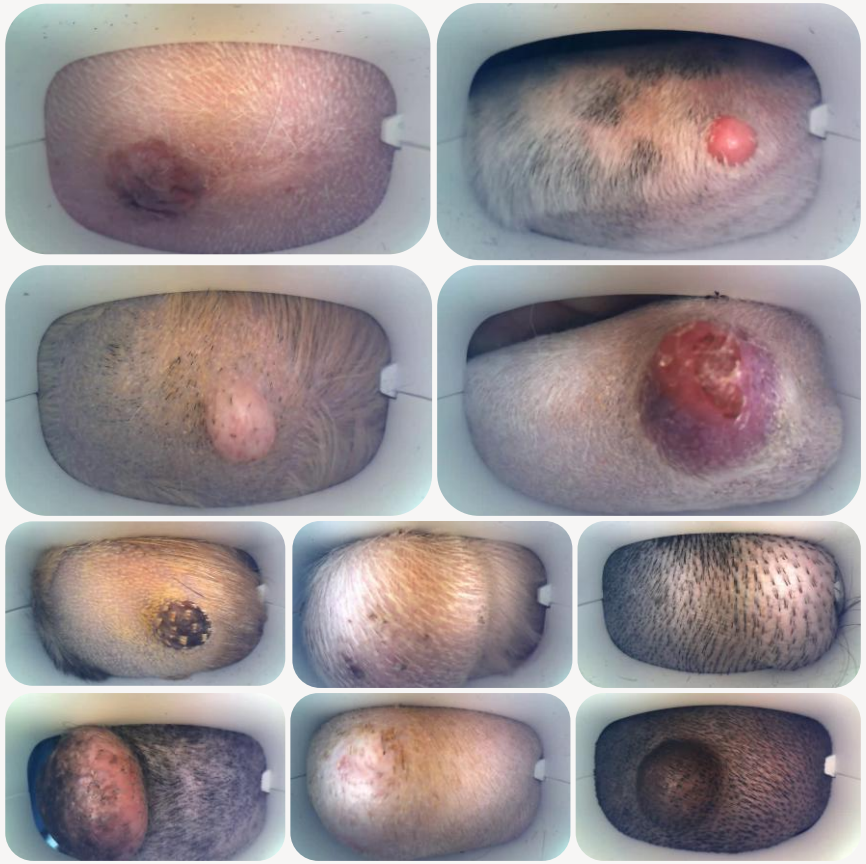
# Clipping

1. Palpate
2. Clip
3. Placement
    - Do I have enough in each box?
    - Do I need to move?
    - Do I need to clip better?



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# Scanning


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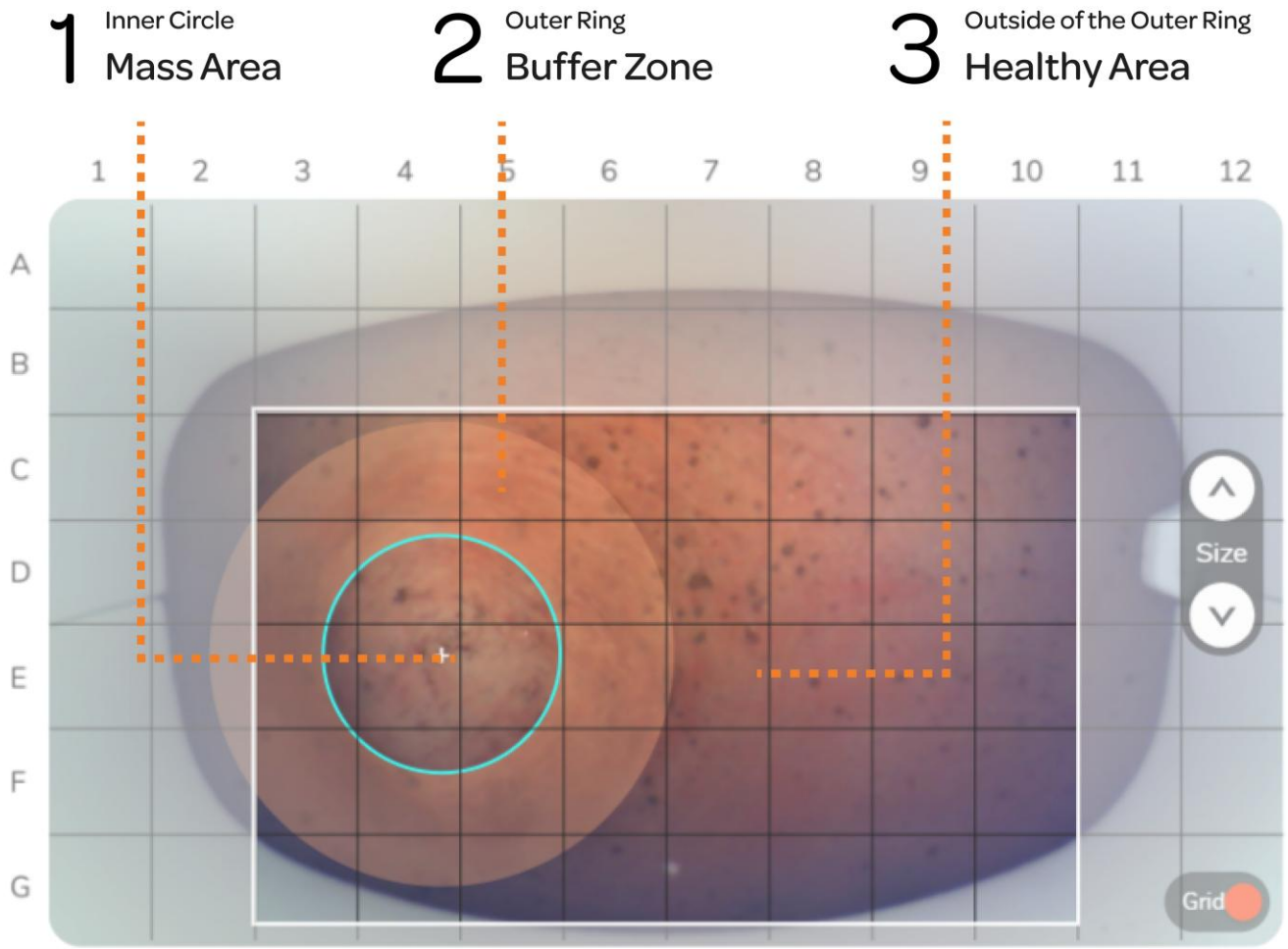
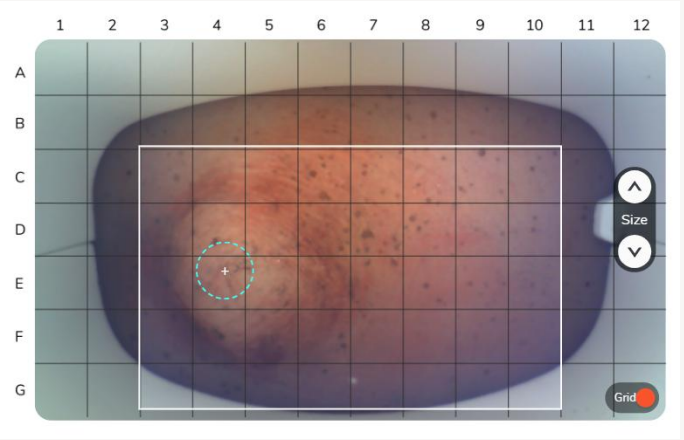
# Marking

## Marking
## 3 Key Areas

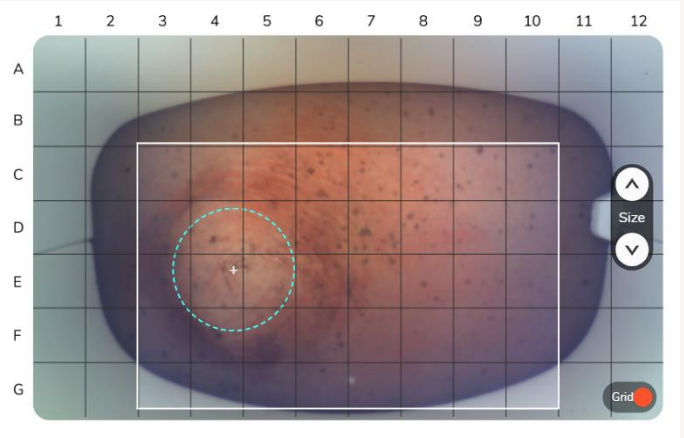



Only areas **1 & 3** are analyzed by the AI-algorithm

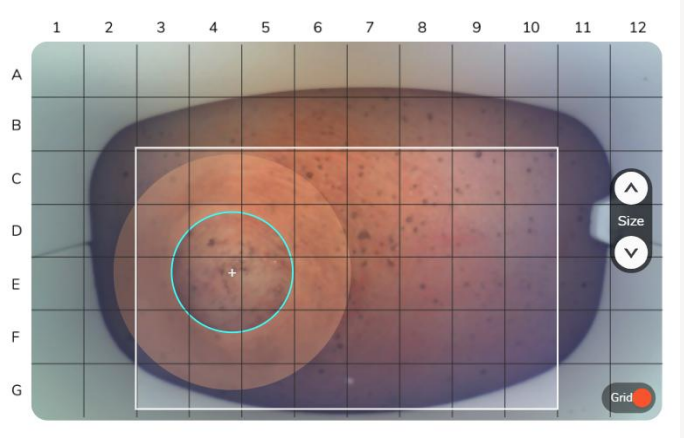
# How To Mark Your Scan




1. Touch the centre of the mass area to start marking.




2. Adjust the circle's size using the arrows on the right, ensuring it includes mass tissue only. The inner circle should be as big as possible and include as much mass tissue as possible, without containing any healthy tissue.




3. Adjust the outer ring radius to cover the margins of the mass. Ensure the area outside the outer ring includes healthy skin only.

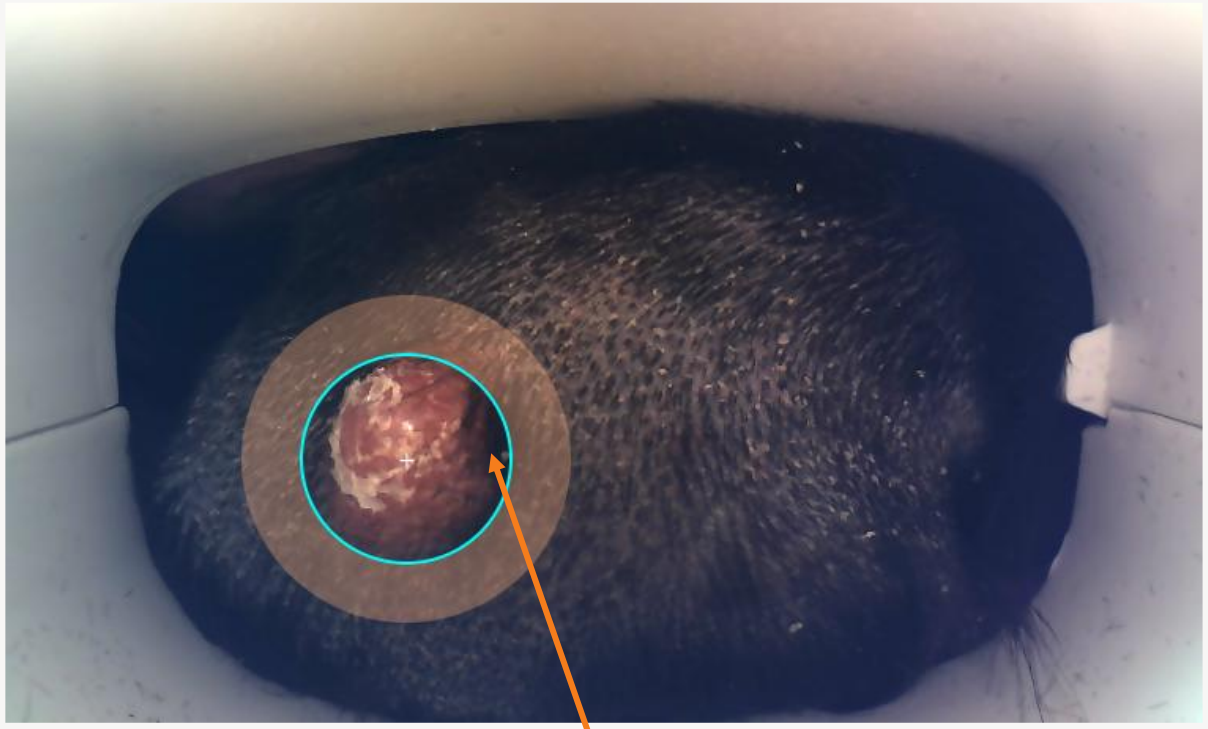
Press 'next' and review your marking before pressing 'analyze'.

# Auto Marking

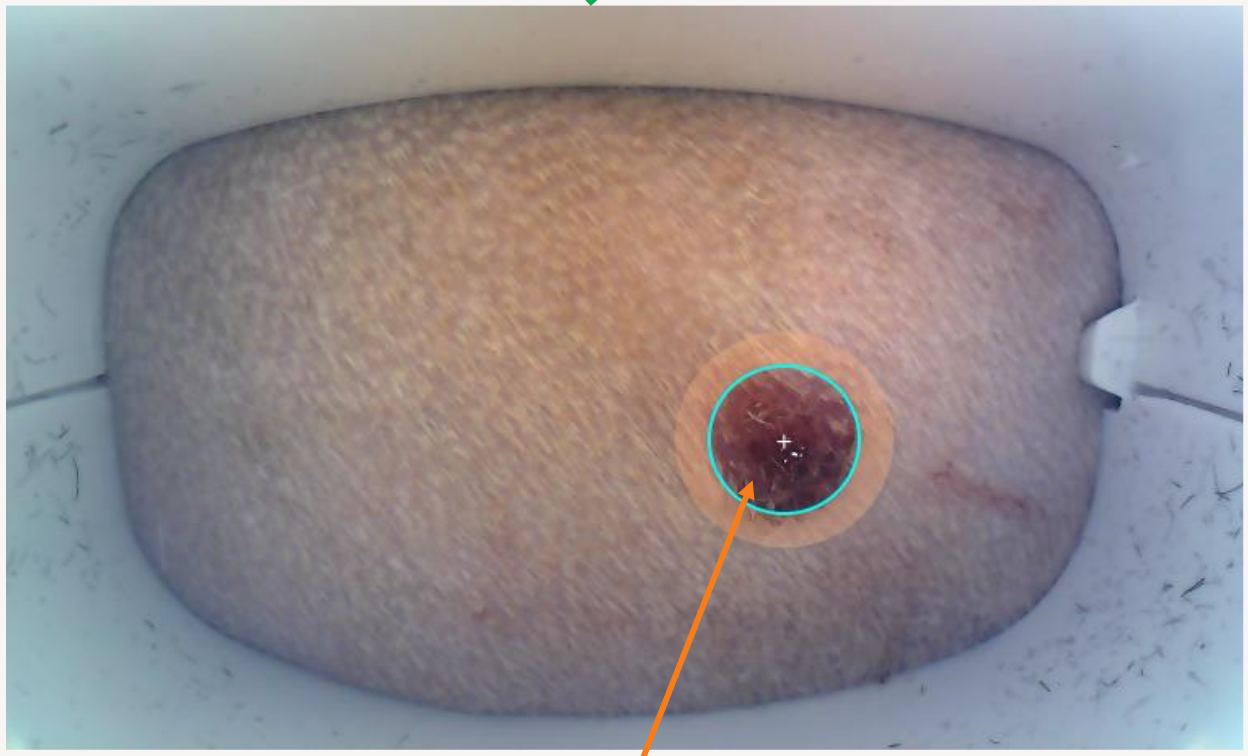
## Mass Location Prediction

In select cases, based on thermal activity, the scan will automatically predict the location of the mass. This can be accepted or further edited.

# Dermal masses



The inner ring contains the mass border. The circle should be reduced to be within the mass border.



The Inner ring contains mass only. The mass border is inside the buffer zone.

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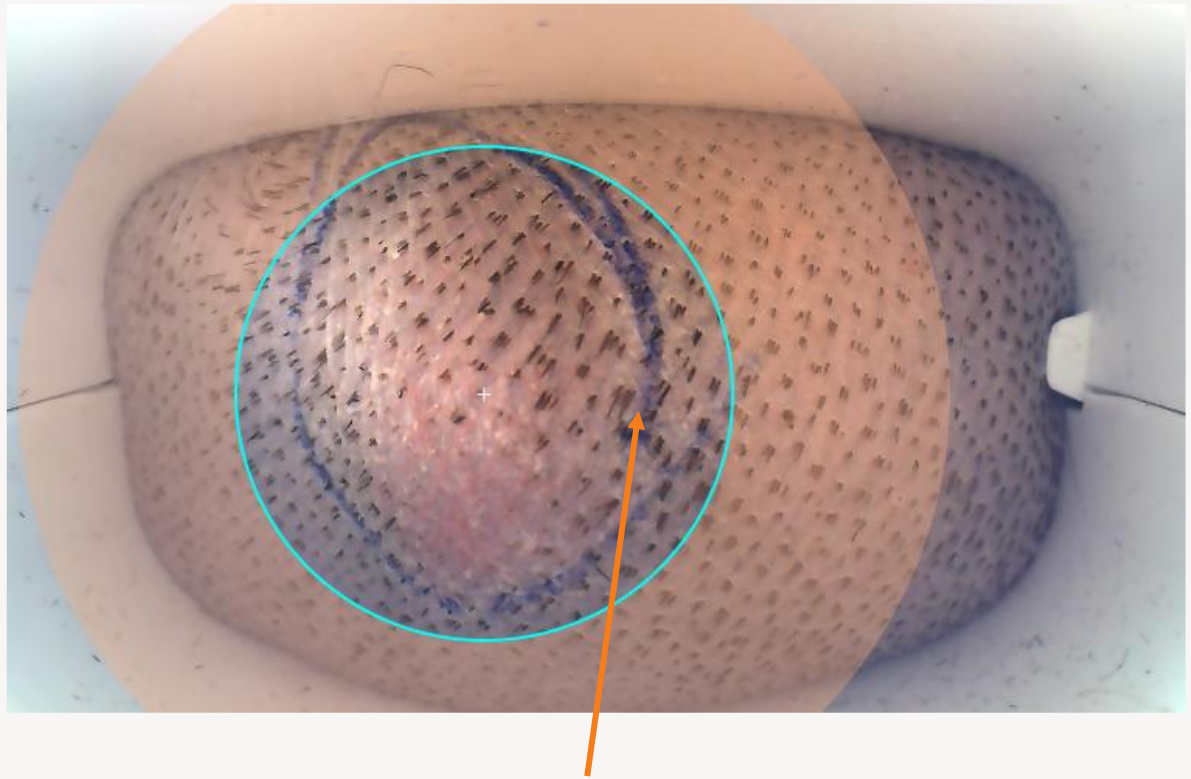
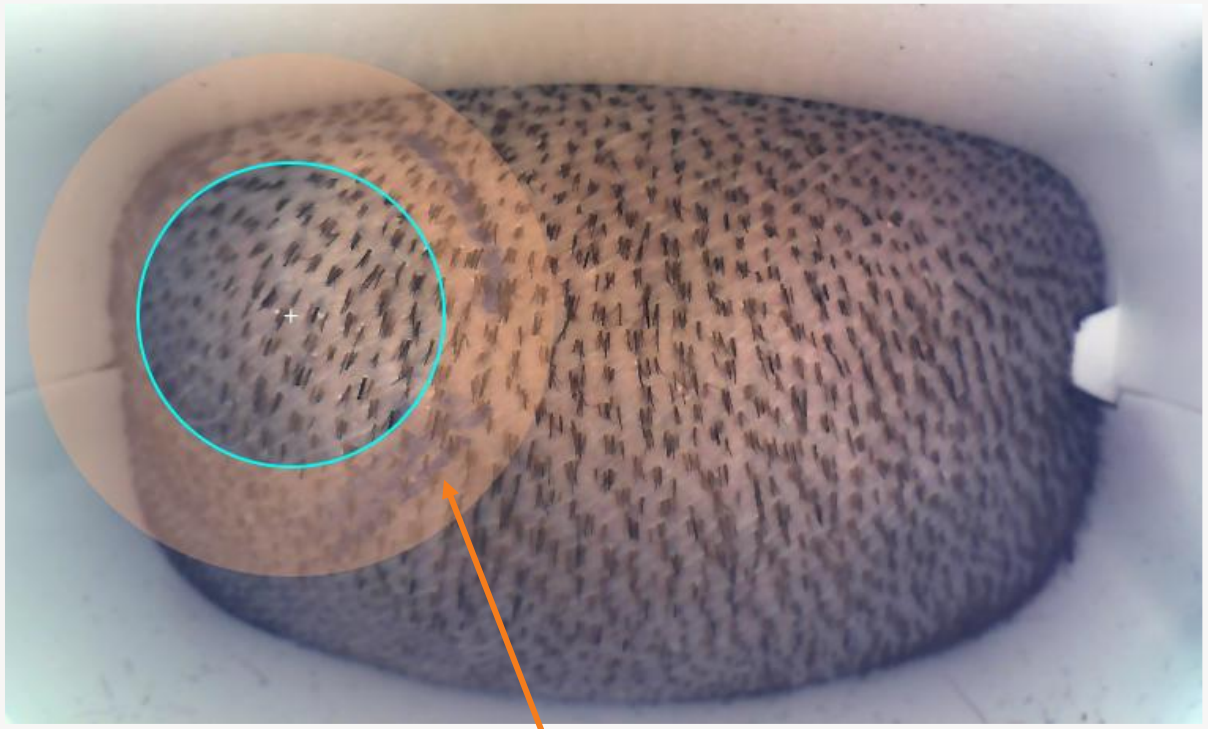
# Subcutaneous & Large Masses



**Pen is inside the inner ring. Pen must be covered by the border zone**



**Pen is in the buffer zone only**

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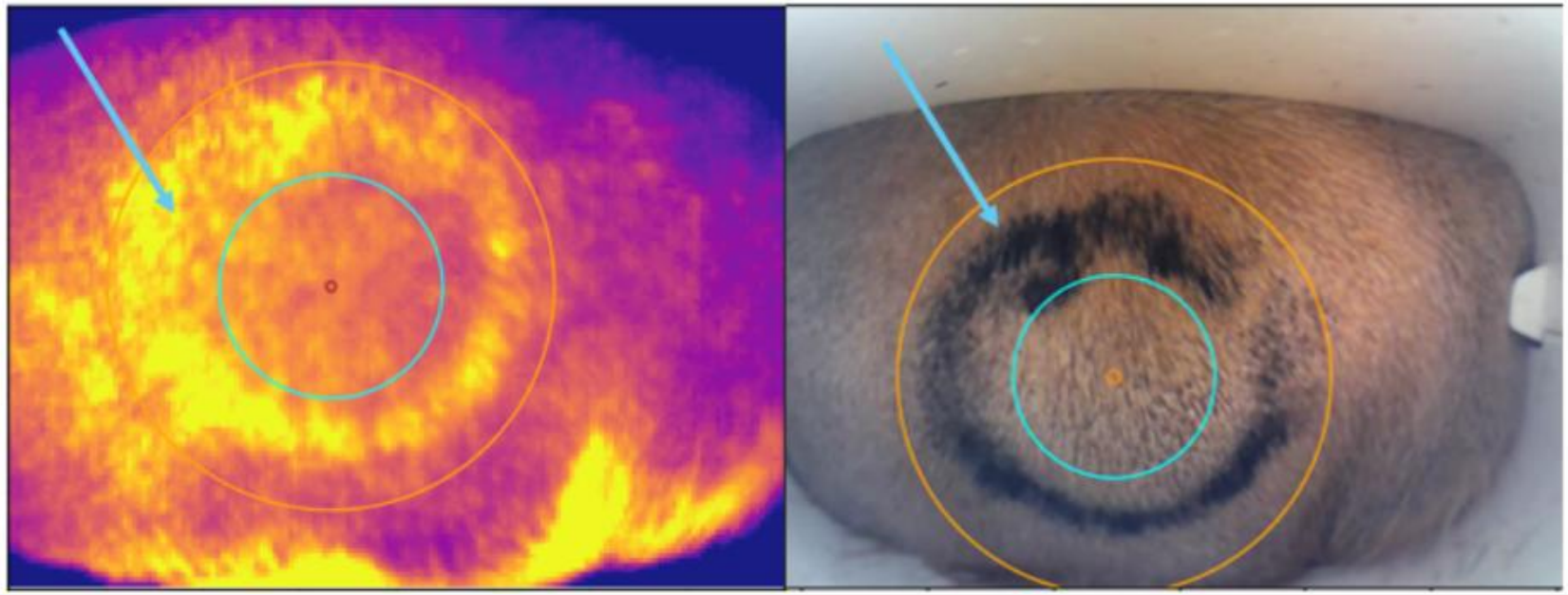
# Subcutaneous Masses

- Blue pen ink
- No red or black ink or markers
- Minimal



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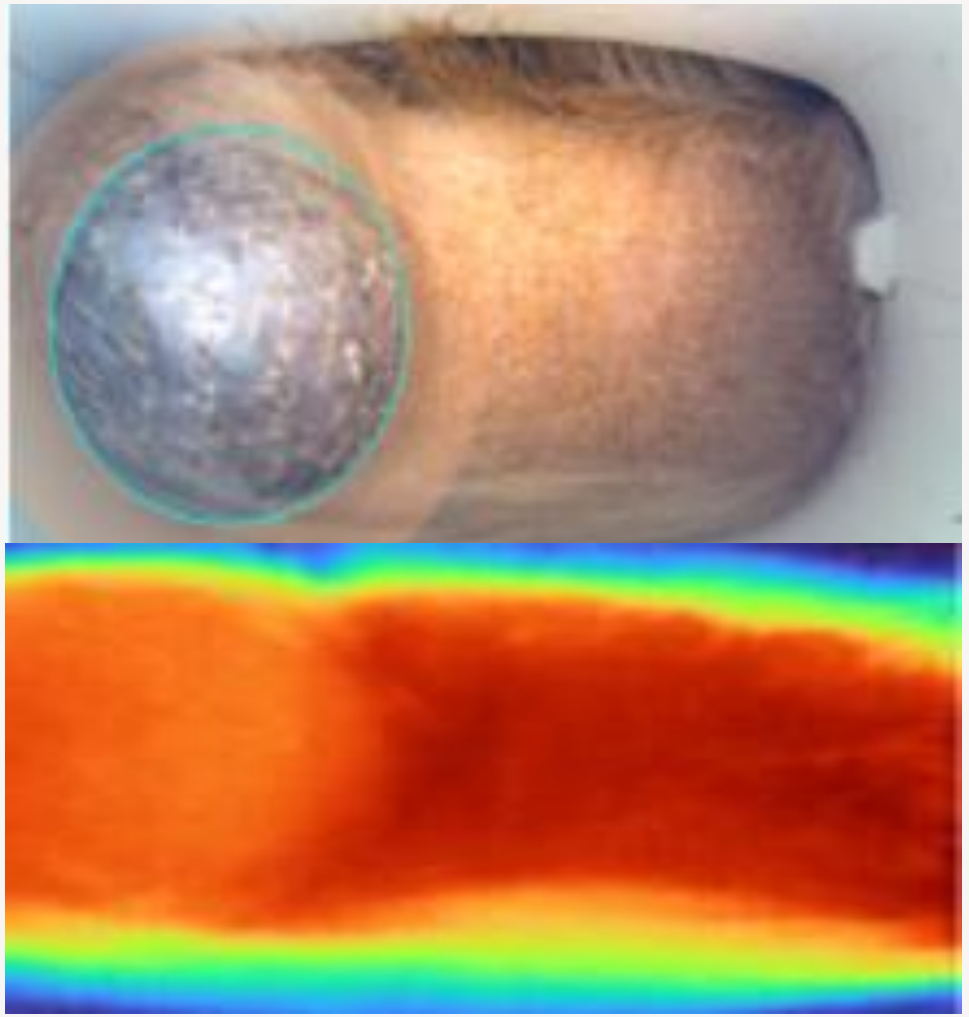
# Mass on a Limb or Tail

Place the scanner over the mass,  horizontal to the limb.

If there are large air gaps, cover these areas with a dark fabric to ensure the tissue can be sufficiently heated.



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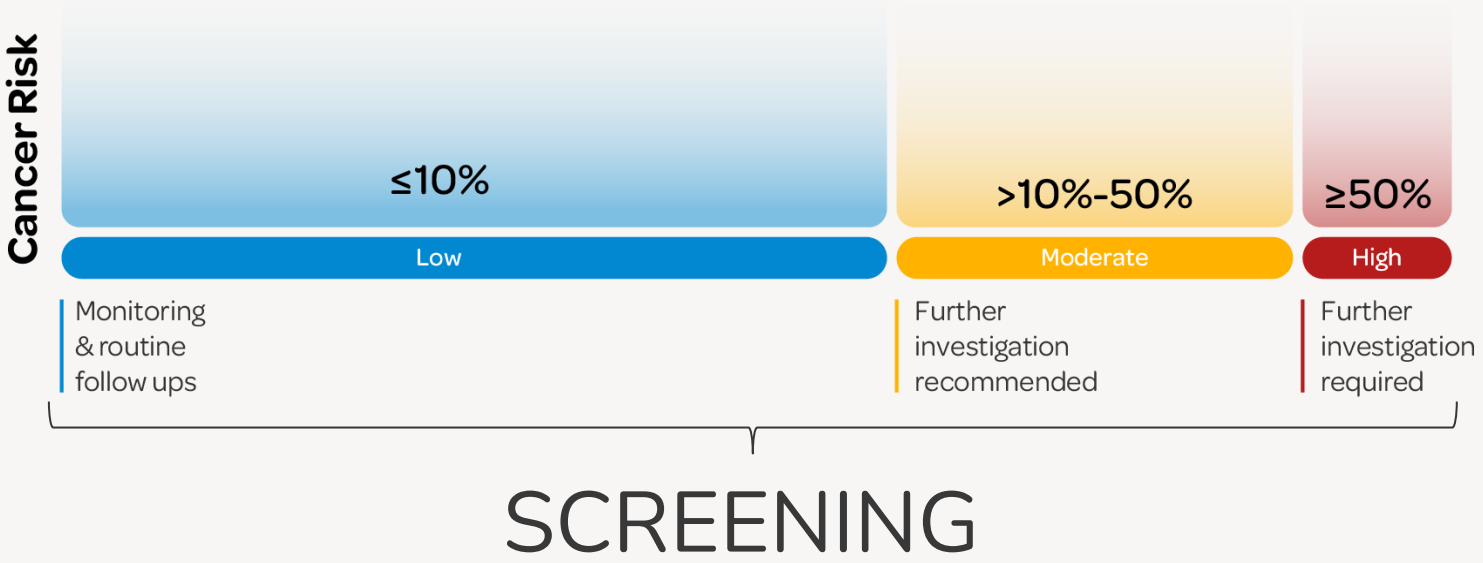
# Screening Results

- All masses go through a **Screening** process.
- Model: **Sen 90%** ; **NPV 98%**
- Each mass gets a **Cancer Risk Value** & **Level**
- Cancer Risk is based on **Malignant Probability (in %)**
- 3 Groups
  - Low-Risk ≤10%
  - Moderate- Risk >10%-50%
  - High-Risk ≥50%
- Recommendation is based on Cancer Risk Level

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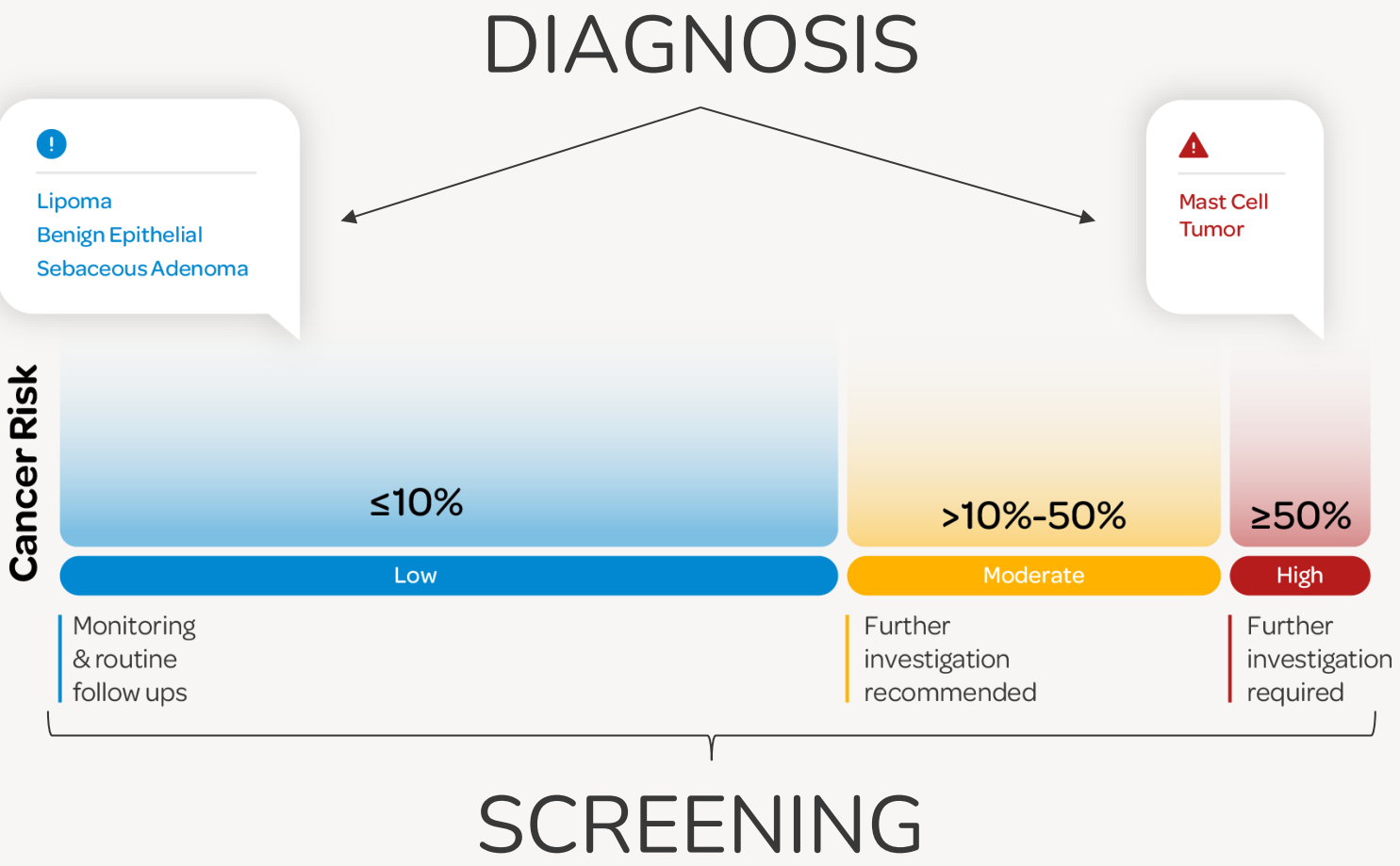
# Diagnostic Results

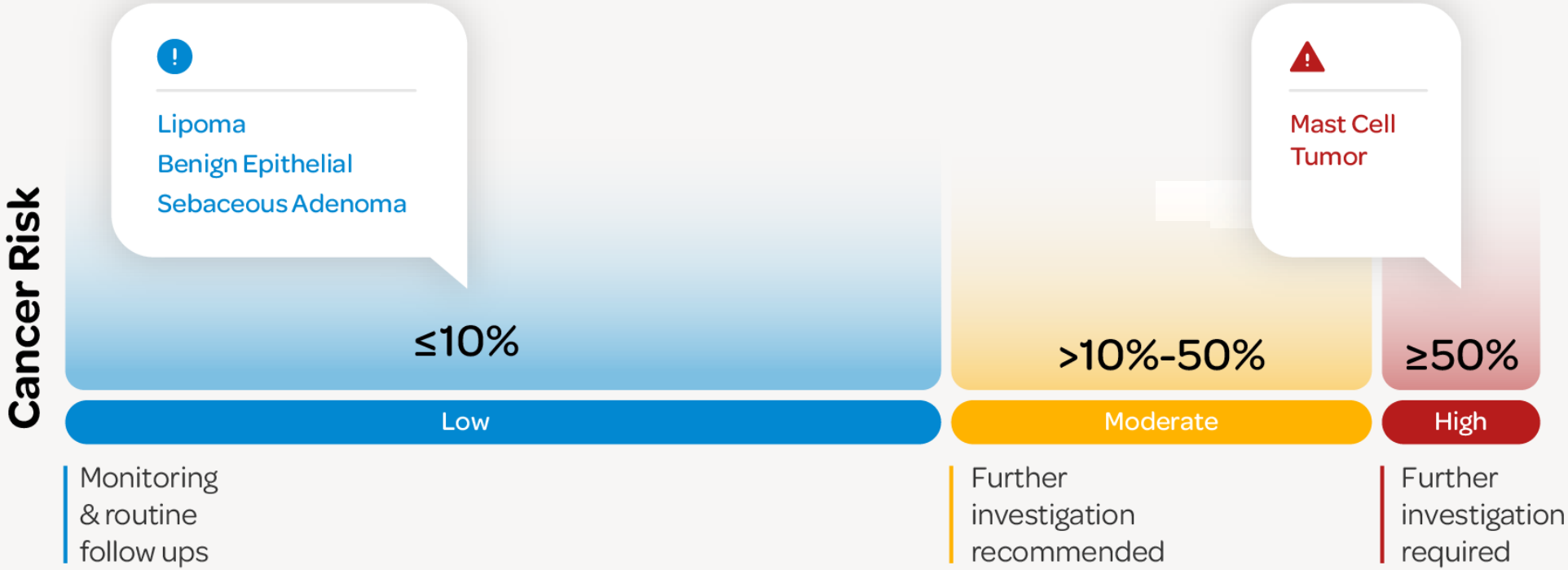
- 20% of masses will also go through a **Diagnostic** Process.
- Two conditions need to be met: **Specificity** and the **Cancer Risk Value**
    1. Specificity **≥90%**
    2. Cancer Risk Value
        - Low-Risk
        - High-Risk
- Alerts

Low-Risk: Lipoma; Benign Epithelial; Sebaceous Adenoma

High-Risk: Mast Cell Tumor



# Recommendations for next step



# Result Dashboard- Low Cancer Risk

Result Dashboard

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**Princess**

| | |
|---|---|
| ID: | 22345 |
| Sex: | Female |
| Breed: | Anglo-Francais de Petite Venerie |
| Age: | 2 |

**Scan Details**

| | |
|---|---|
| Scanned by: | Docs Name |
| Mass Area: | Right Pelvis |
| Mass ID: | MS-34 |
| Scan ID: | SC-35 |
| Date: | Feb 6th '24 |
| Time: | 7:17 pm |

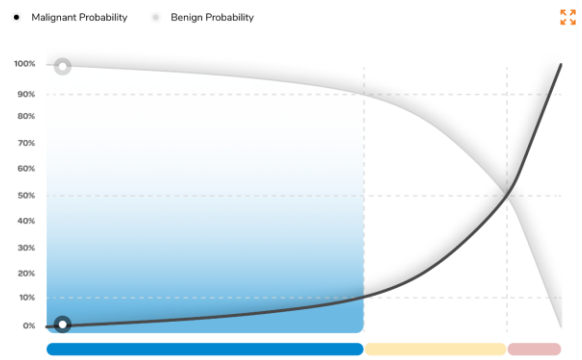
## Screening Findings

Cancer Risk Value

1%

Cancer Risk Level

Low




## Imaging

Optic Image

Thermal Image

## Diagnostic Findings

Lipoma

## Recommendation

Monitoring and routine follow-ups

## Interpretation

The mass demonstrates 99% probability of being benign based on similar HDI characteristics observed in other benign cases. This indicates a high probability that the mass is benign, therefore, the mass can be safely monitored with routine follow-ups.

Additionally, the mass was identified as a Lipoma with high specificity, based on similar HDI characteristics observed in comparable cases.

# Result Dashboard- Moderate Cancer Risk

Result Dashboard

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### Princess

| | |
|---|---|
| ID: | 22345 |
| Sex: | Female |
| Breed: | Anglo-Francais de Petite Venerie |
| Age: | 2 |

### Scan Details

| | |
|---|---|
| Scanned by: | Docs Name |
| Mass Area: | Right Pelvis |
| Mass ID: | MS-34 |
| Scan ID: | SC-35 |
| Date: | Feb 6th '24 |
| Time: | 7:17 pm |

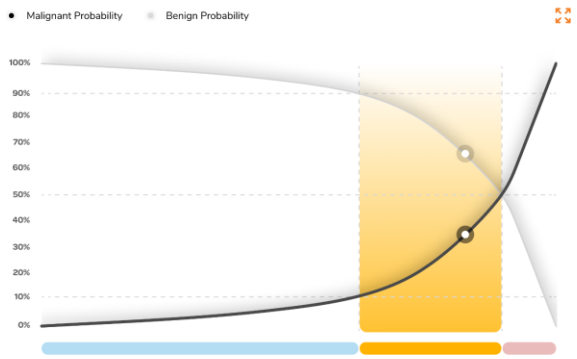
### Screening Findings

Cancer Risk Value

35%

Cancer Risk Level

Moderate




### Imaging

Optic Image

Thermal Image

### Diagnostic Findings

N/A

### Recommendation

Further investigation recommended

### Interpretation

The mass has 35% probability of malignancy and 65% probability of being benign based on HDI characteristics observed in similar cases. As the probability of the mass being benign has fallen below 90%, further investigation is recommended.

# Result Dashboard- High Cancer Risk

Result Dashboard

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## Princess

| | |
|---|---|
| ID: | 22345 |
| Sex: | Female |
| Breed: | Anglo-Francais de Petite Venerie |
| Age: | 2 |

## Scan Details

| | |
|---|---|
| Scanned by: | Docs Name |
| Mass Area: | Right Pelvis |
| Mass ID: | MS-34 |
| Scan ID: | SC-35 |
| Date: | Feb 6th '24 |
| Time: | 7:17 pm |

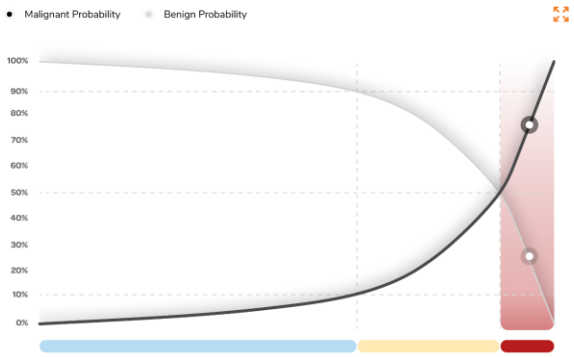
## Screening Findings

Cancer Risk Value

75%

Cancer Risk Level

High




## Imaging

Optic Image

Thermal Image

## Diagnostic Findings

Mast Cell Tumor

## Recommendation

Further investigation required

## Interpretation

The mass shows 75% probability of being malignant based on similar HDI characteristics observed in other cases. This indicates a high probability that the mass is malignant, therefore, further investigation of this mass is required.

Additionally, the mass was identified as a Mast Cell Tumor with high specificity, based on similar HDI characteristics observed in comparable cases.

# Stats Made Easy

SCREENING

DIAGNOSTIC

**90%**
SENSITIVITY

**98%**
NPV

**90%**
SPECIFICITY

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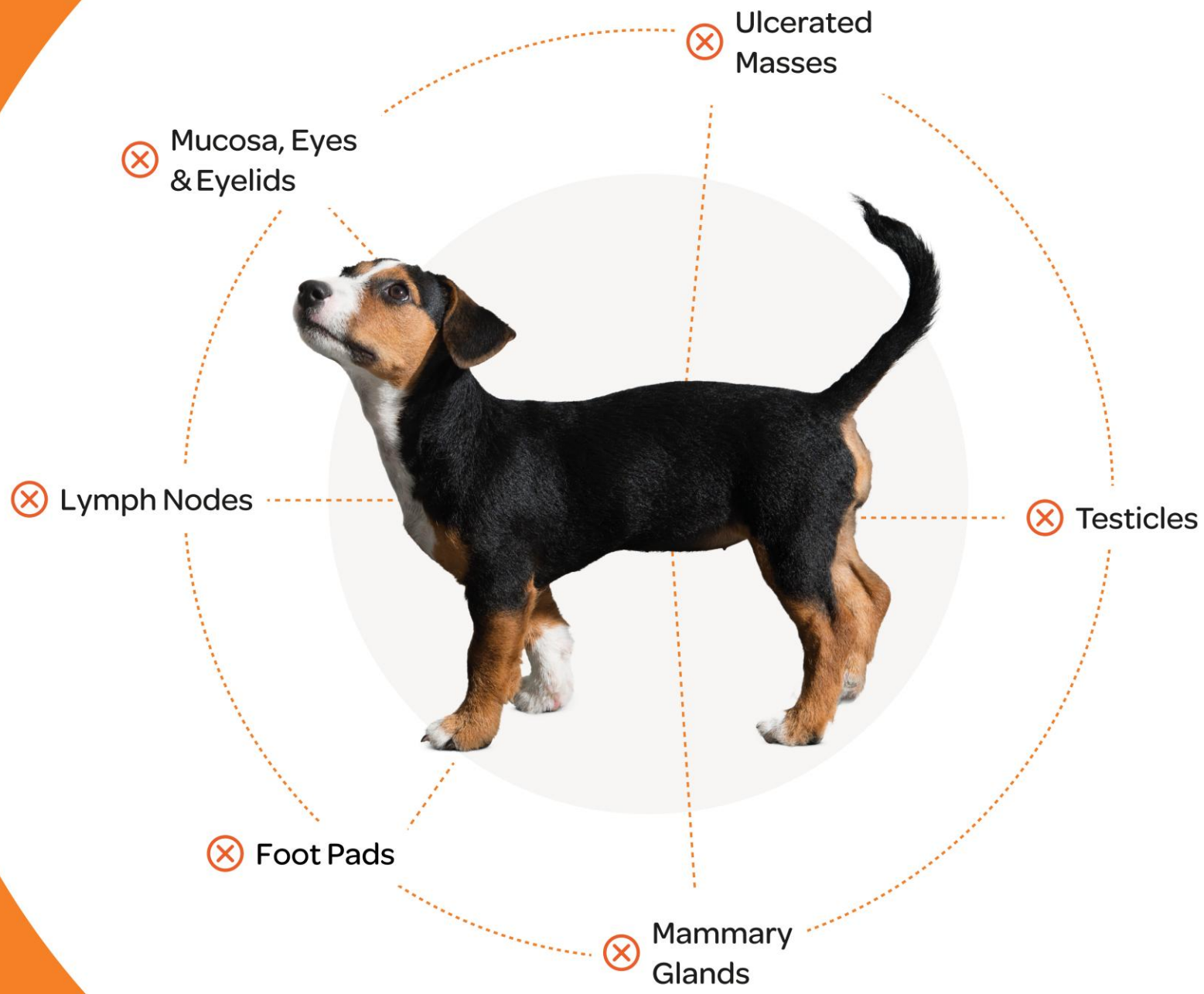
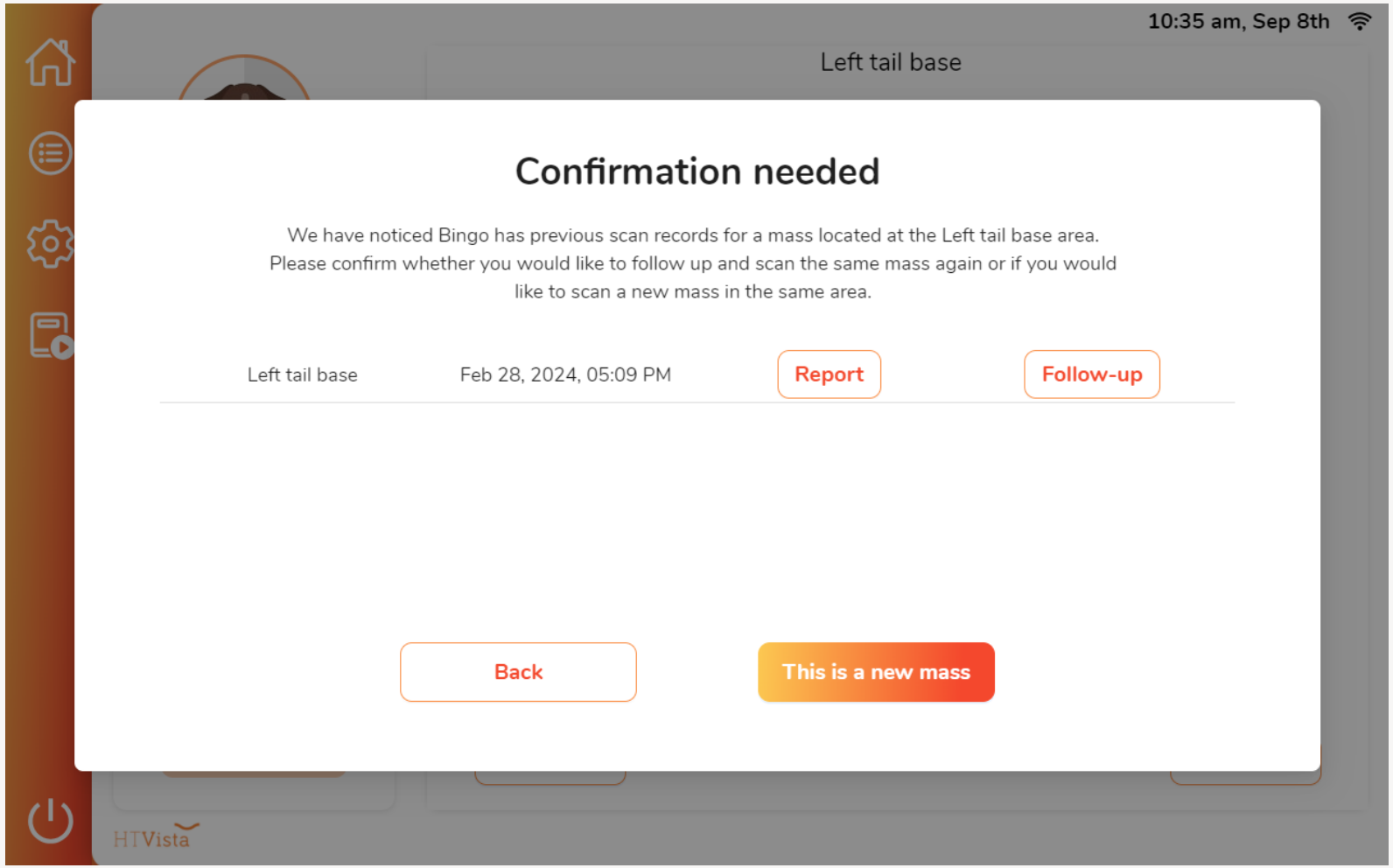
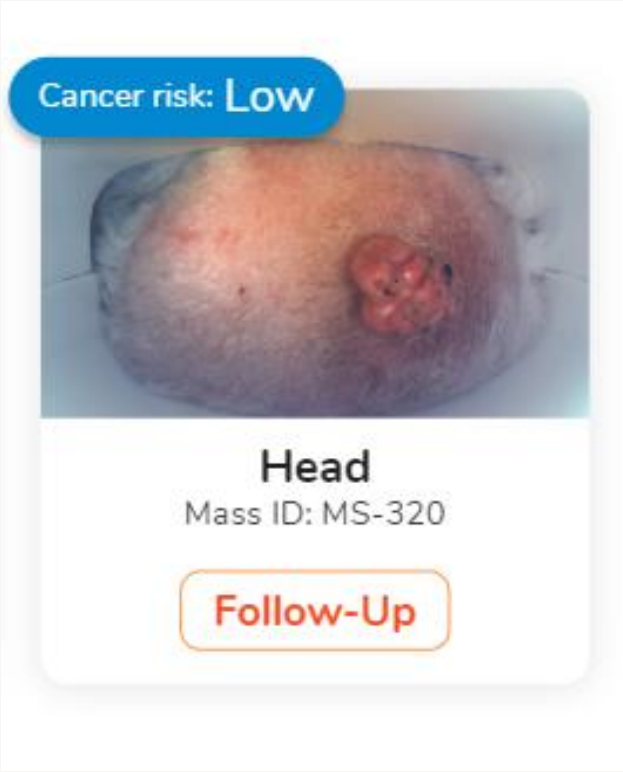
# Not Suitable For



# Follow Up Scans



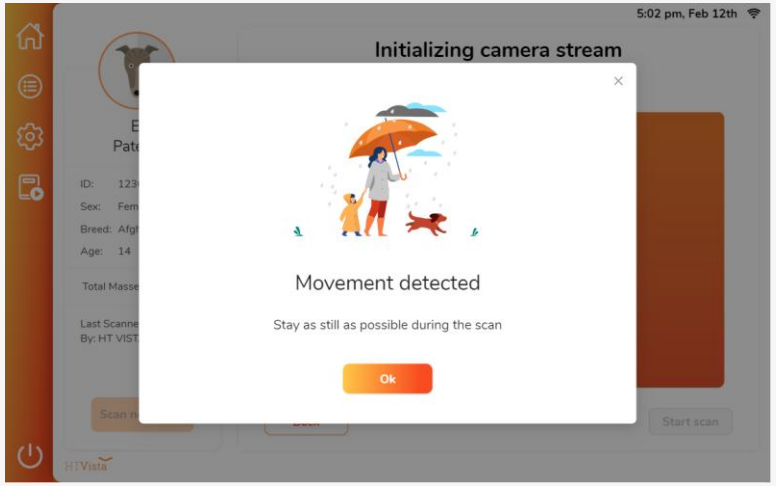

When performing a follow up scan, please use the **Follow-Up** button

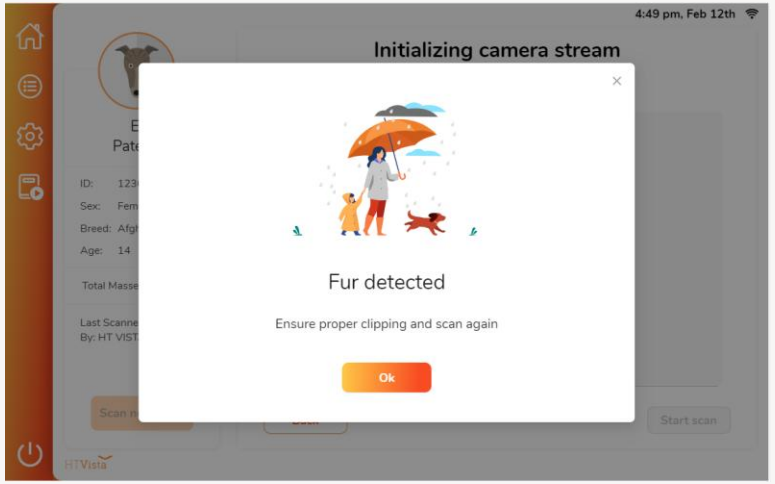
# Real Time Feedback

Re-scanning a mass is only advised in cases of:

- Movement-related interruptions
- Fur detection
- Post-marking rejections.

The system will allow you to re-scan immediately.

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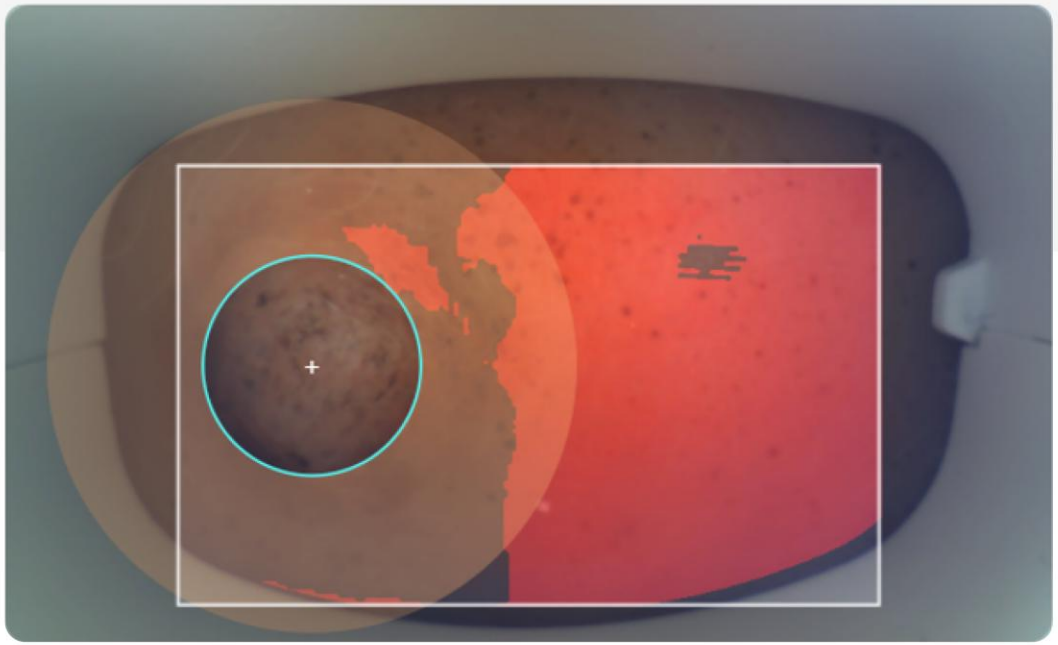
# Post Marking Signal Quality Check

Red Mask Covering the

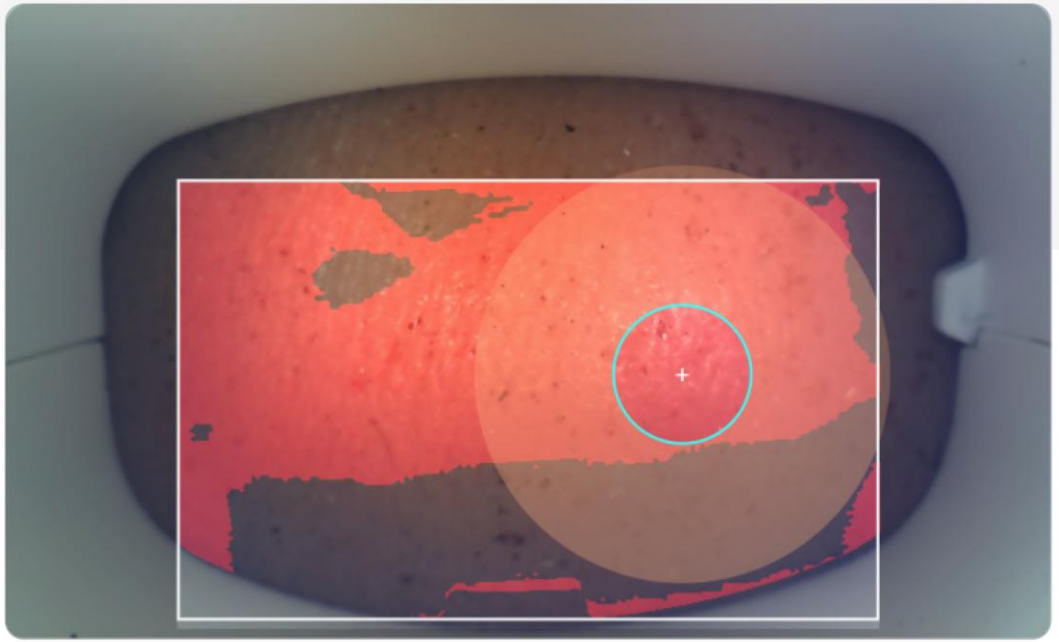
## Healthy Area

⊗ Sorry, we cannot analyze your scan
The healthy area contains too much fur



Red Mask Covering the

## Mass Area



# Tips for a Successful HT Vista Integration

No More
"Wait & See"

Nurses & Technician
Led Process

Scan Before Full
Vet Consultation

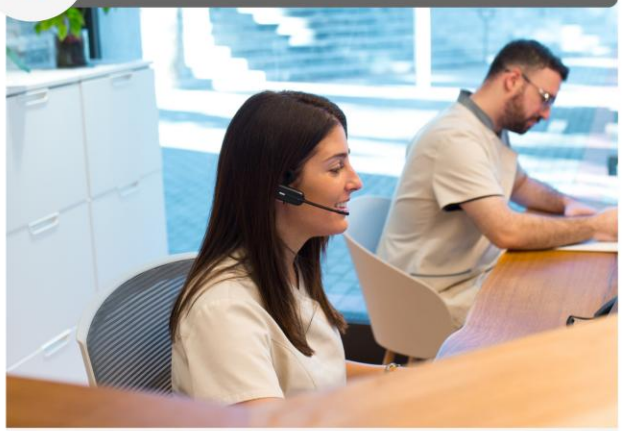
HT Vista
Champion & Team
Training

Device Location
& Stable Wi-Fi
Connection

Pet Owner
Education &
Communication

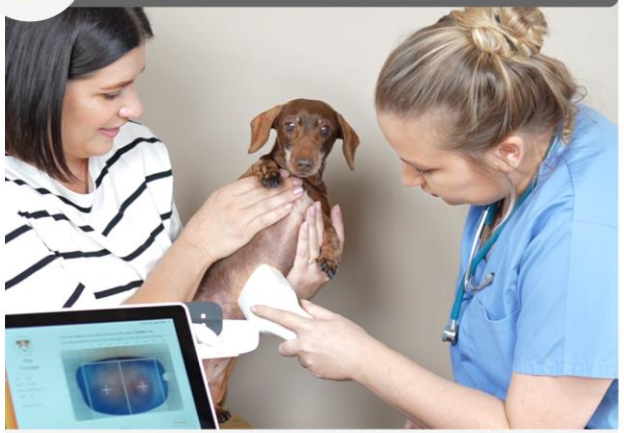
# Lumps & Bumps Screening - A Nurse/Technician-Led Process

## 1 Receptionist →



Routine Vet Appointment Booking

## 2 Nurse/Technician Screening →



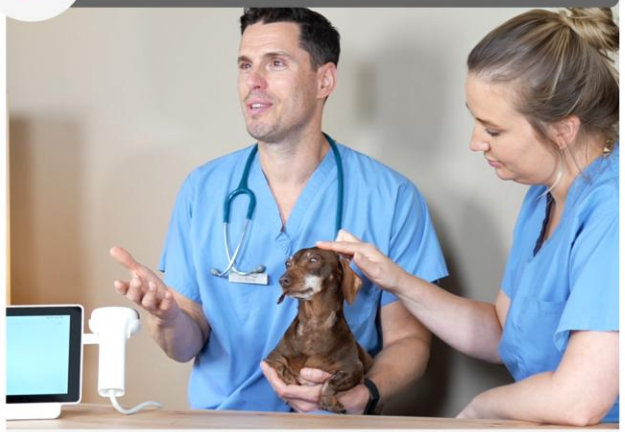
Patient Evaluation

Lump Identification

Fur Clipping

Lump Scanning with HT Vista

## 3 Full Vet Consultation →



Clinical examination

Result Evaluation

Shared Decision-Making




## Suggested Workflow for Lumps & Bumps

# Contact us for any question

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# HT VET Support

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# Let’s Scan…


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