

# NeuroImaging Techniques

Discovering Anxiety Disorder.

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## Introduction

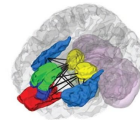
- What do you know about anxiety disorder?  
Anxiety disorder are a set of pathological fears and anxieties like:
  - posttraumatic stress disorder (PTSD)
  - social anxiety disorder
  - specific phobia
  - normal fears
  - [...]

## Introduction

- What happens inside our brains?  
Various studies show that there is a link between anxiety disorders and specific areas of the brain. Different areas are activated during anxiety's process.

## Introduction

- How do we know it?  
The study of human anxiety disorders has benefited greatly from functional neuroimaging approaches.



## Objective

- The focus of this study is show that:
  - There is a link between anxiety disorders and specific areas of the brain.

## Hypothesis

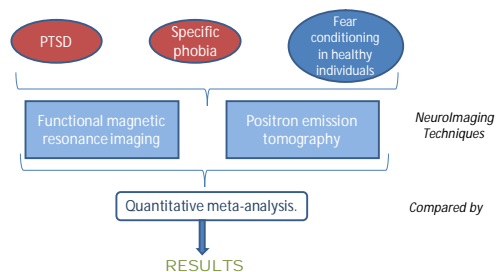
- Is there a link between anxiety disorders and specific areas of the brain?

## Material and Methods

- Subjects:  
Patients with some kind of anxiety disorder and healthy patients.
- Experimental paradigm:  
Searched for common and disorder-specific functional neurobiological deficits in several anxiety disorders. To study brain activation of fear in healthy patients we use phobia-related and neutral pictures.

## Material and Methods

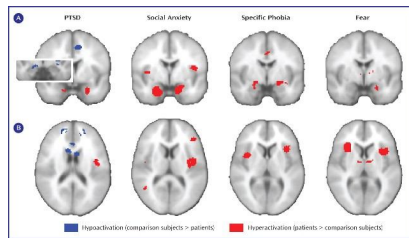
- Design:



## Material and Methods

- Results:

The forebrain is the area most affected in people with anxiety disorders.



Results are shown for the amygdalae (A) and insular cortices (B).

## Problems

- The study need a large number of subjects. Actually it represent a relatively limited population size.
- Noted age and gender ratio differences between subjects.
- The PET techniques require a meticulous process.