

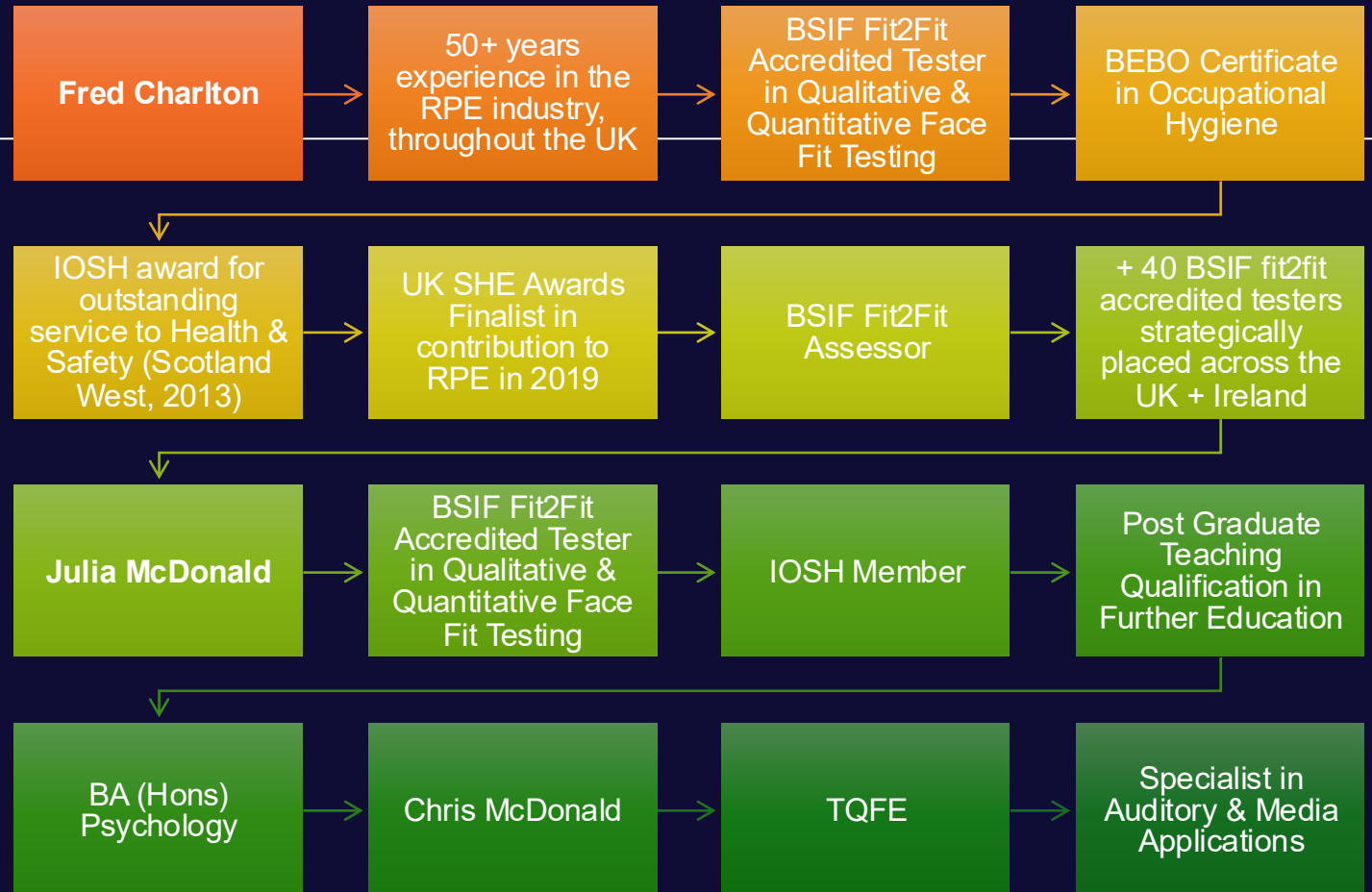
# UNDERSTANDING RPE



RPE2Fit Ltd



# WELCOME & INTRODUCTION





# WHY DO WE DO, WHAT WE DO?



HSE report 11,000 premature deaths from occupational cancer. They also report that there are circa 5m users within the UK of RPE, of which 50% are inadequately protected. This is due to poor training, poor fit and improper RPE selection.



We are dedicated and aim to help reduce these numbers by delivering quality RPE guidance in selection and training and testing in both types of Face Fit Testing.

**Prove the Protection.**

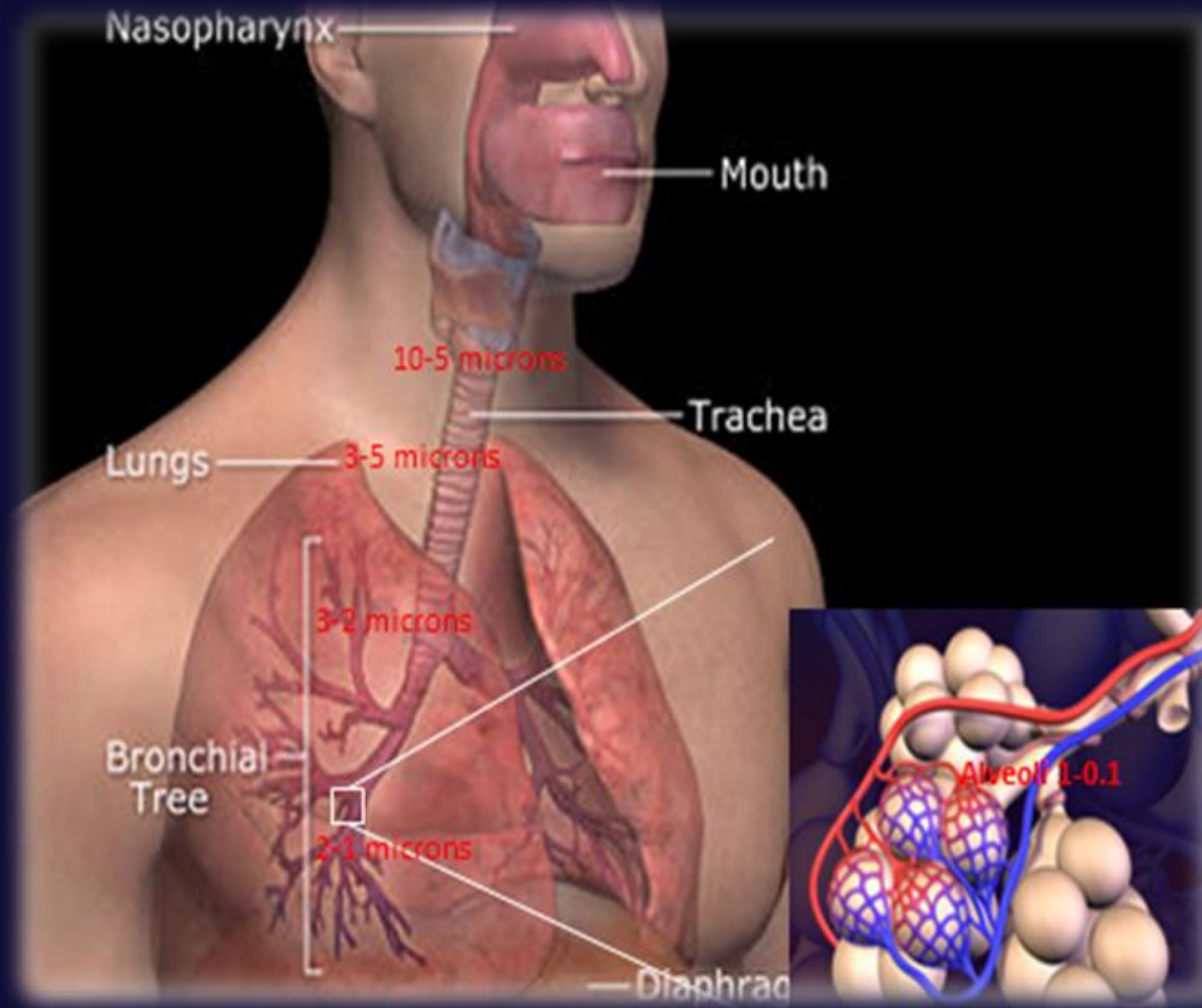


# HAZARDS

- ▶ Particulates - Dust, Mist, Fume, Fibres
- ▶ Gas/Vapour
- ▶ Oxygen deficiency



# ROUTES OF ENTRY (PARTICULATES)(CHRONIC EFFECT)





# SILICA EXPOSURE



- [https://www.youtube.com/watch?v=R\\_sC2wX9Uwc](https://www.youtube.com/watch?v=R_sC2wX9Uwc)



# ROUTES OF ENTRY (GAS/VAPOUR) (ACUTE EFFECTS)

- ▶ Through the haemoglobin in the blood
- ▶ Enters the central nervous system
- ▶ Spreads to the vital organs  
(heart/liver/kidneys/lungs/brain)



# RESPIRATOR MARKINGS

- ▶ All respirators should have essential markings.
  - ▶ Do you know what to look for?
  - ▶ How can you tell if you have a replica?





# TYPES OF RPE

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- Disposable
- Reusable RPE
- Powered RPE
- Airline RPE
- SCBA (Self Contained Breathing Apparatus)



# DISPOSABLES



- FFP1 – APF 4
- FFP2 – APF 10
- FFP3 – APF 20



# REUSABLES (HALF MASKS/FULL FACE PIECES)



- APF:
  - $\frac{1}{2}$  mask 20 P3 filter (10 gas filter)
  - Full face 40 P3 filter (20 gas filter)





# Powered Air-Purifying Respirators (PAPR)

- How PAPRs Work
- Enhanced Comfort & Visibility
- High-Level of Protection





# RPE FILTERS

- **A= Organic Vapour** (good warning properties i.e. taste/smell)
- **B= Inorganic gasses**
- **E= Acid gas**
- **K= Ammonia**
- **P= Particulates = white**
- **AX=Low boiling point Organic Vapours** < 65 degrees C
- **P-P1** (4xWEL) **P2** (10xWEL) **P3** (20 x WEL)
- **P3 on FFP=40 x WEL**
- **Class 1-ABEK1**-(Up to 1000ppm or 10xWEL) **Class 2-ABEK2**-(Up to 10000ppm or 10xWEL)
- Limitation of Air Purifying Filters- Some filters don't easily adsorb into activated carbon
- Some Organic Vapours are not easily detectable by taste or smell



# Legislation/HSE Guidance

- CoSHH
- CLAW
- CAW
- INDG479 (rev1)
- HSG 53
- EH 40

# Correctly Fitting



- Where should the straps be located?
- How to correctly adjust the straps
- How to correctly preform a nose clip
- Pre-wear checks – how to and why?



# RPE Maintenance & Storage

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- Cleaning
- Inspection
- Storage
- Maintenance



# Face Fit Testing: Why It's Critical

Face fit testing is a crucial step in ensuring that respiratory protective equipment (RPE) provides the intended level of protection against hazardous substances like respirable crystalline silica (RCS). Without a proper fit, even the highest-rated respirator can fail to keep workers safe.

- Ensures Effective Protection
- Prevents Compromised Safety
- Legal Requirement & Compliance

**Regular face fit testing, alongside correct RPE selection and maintenance, forms an indispensable part of a comprehensive respiratory protection program, safeguarding worker health and meeting statutory obligations.**



# Factors Affecting Face Fit

- Weight Loss
- Weight Gain
- Facial Scarring
- Broken Nose
- Extreme Dental Surgery
- A mole forms within the seal of the mask
- Other head-worn PPE
- Any other changes to the face

**FACIAL HAIR**

# Qualitative Vs Quantitative



# KEEP IN TOUCH

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**RPE2Fit Ltd**

**Julia McDonald**

**Julia@rpe2fit.com**

**07884498709**