# HPV, vaccines and cervical cancer

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#### Cervical cancer

- Case histories
- HPV and cervical cancer
- HPV vaccination why its safe!

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#### Ms AL

- Computer programmer
- Pv bleeding, pain
- Hypnosis, opiates
- Died aged 36 years old 1852



#### Ms EP

- Politician
- Radical hysterectomy
- Chemotherapy
- Died aged 33 years old 1952

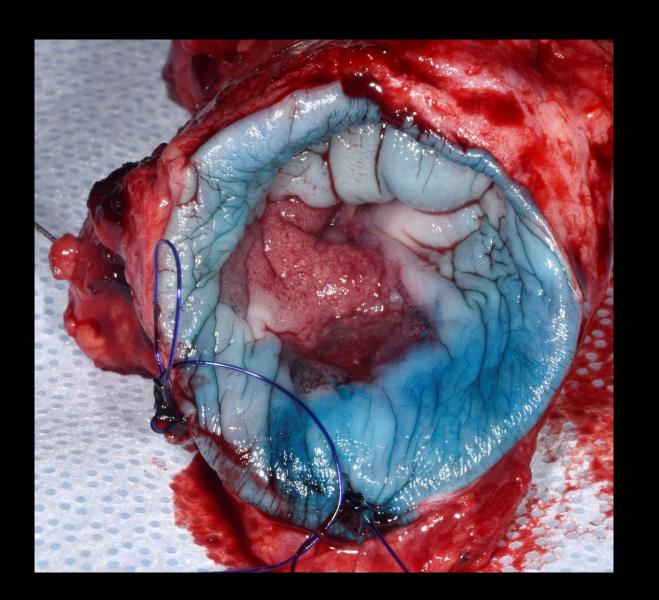




#### Ms ER

- 26 year old mother
- Abnormal smears in pregnancy
- Radical hysterectomy
- Radiotherapy
- 2016





## Has there really been so little change over the centuries?

- Understanding?
- Prevention?

#### Cervical cancer

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#### Human Papillomaviruses



~ 20 anogenital types:

90% warts

Low Risk

**6,11 42, 43, 44, 54, 61** Anogenital warts

70% cervical cancer

High risk

**16,18** 45, 31, 33, 52, 58, 35,

59, 56, 39, 51, 73, 68, 66

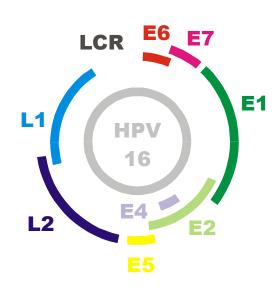
Cervical neoplasia

#### **HPV**

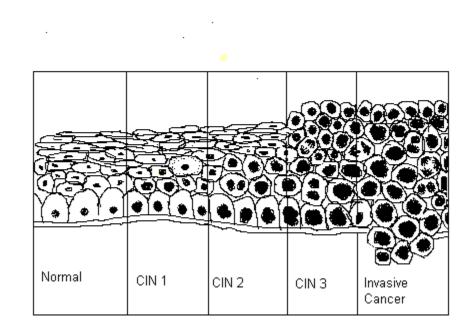
- Common we all get it
- Mostly no consequences
- Can be present for years

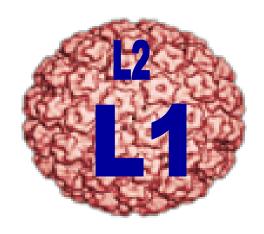
#### **Oncogenic**

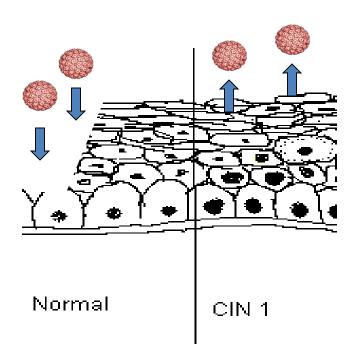
Make protein shell

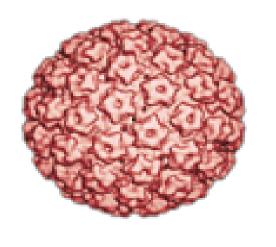


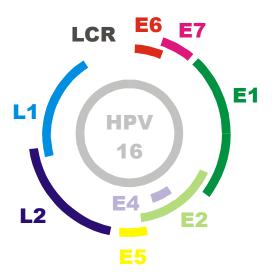
#### Natural history cervical cancer

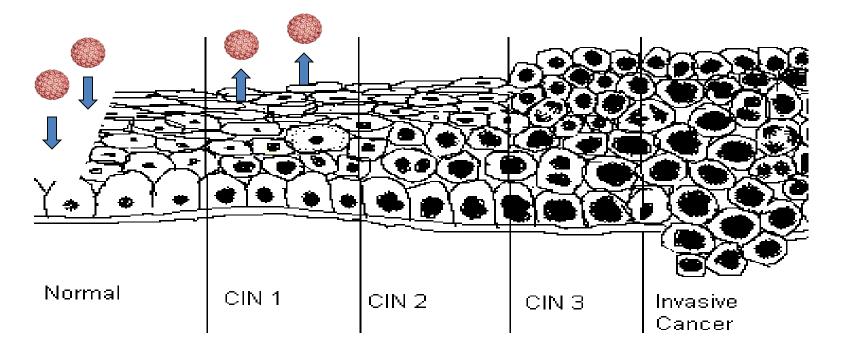


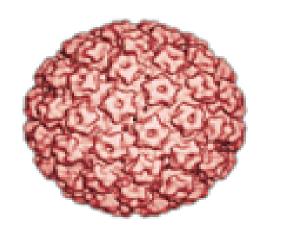


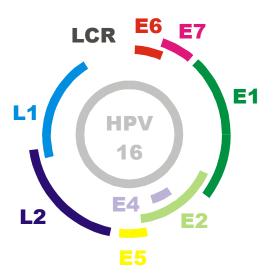


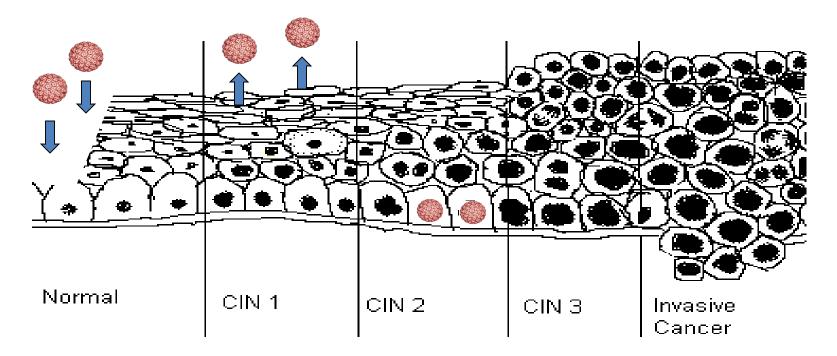


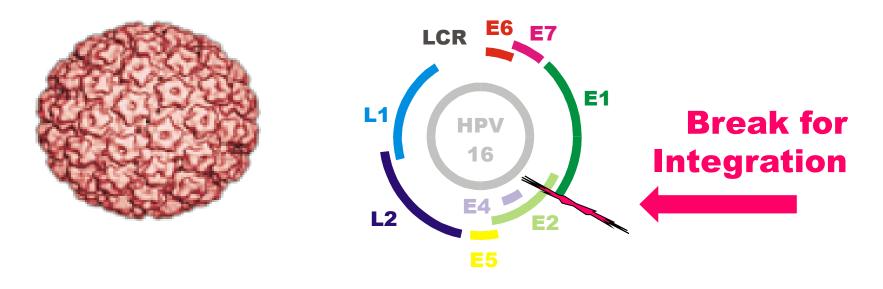


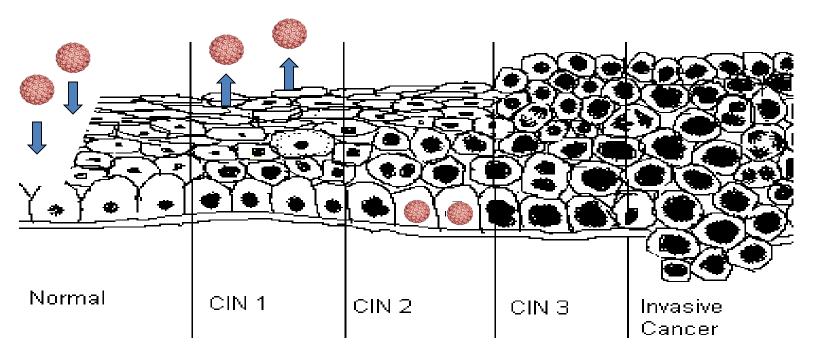


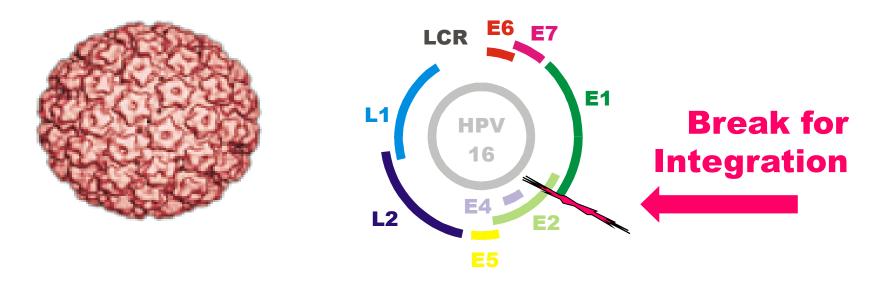


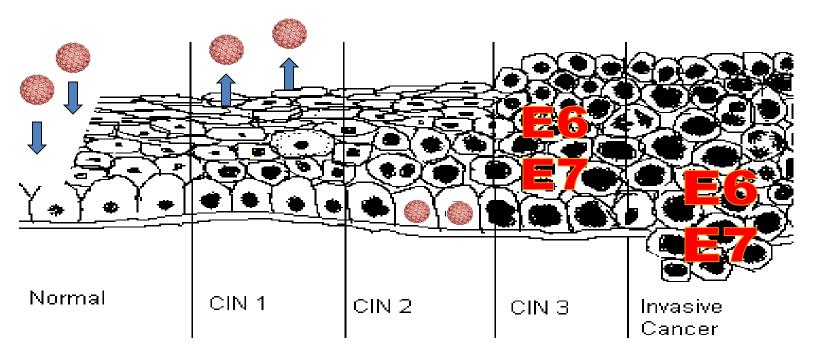




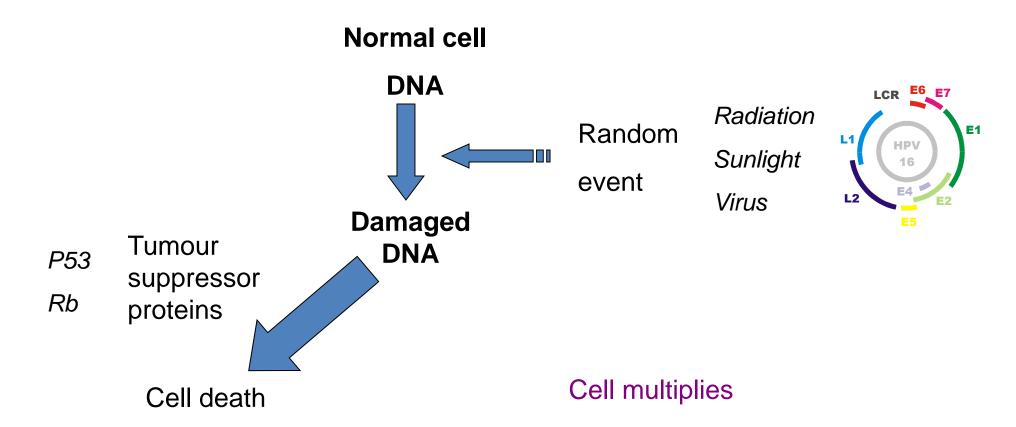


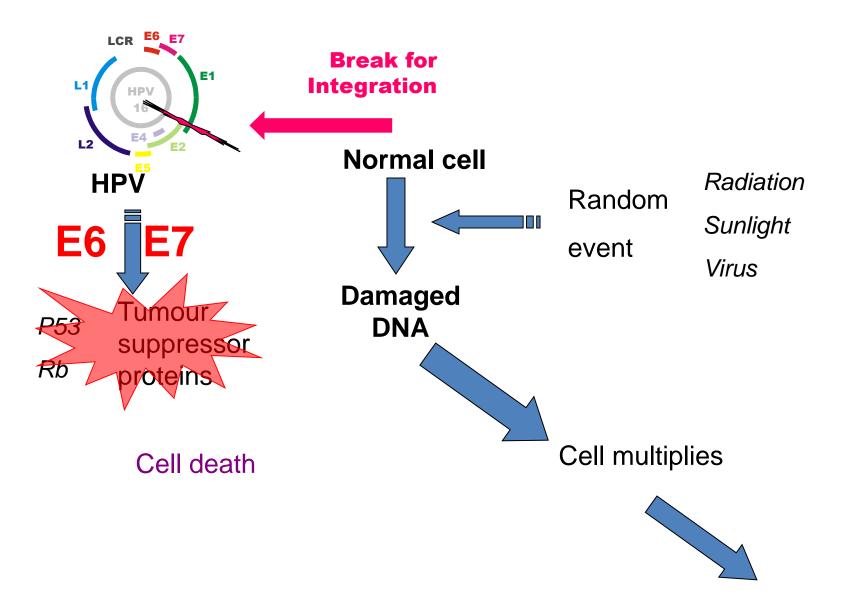






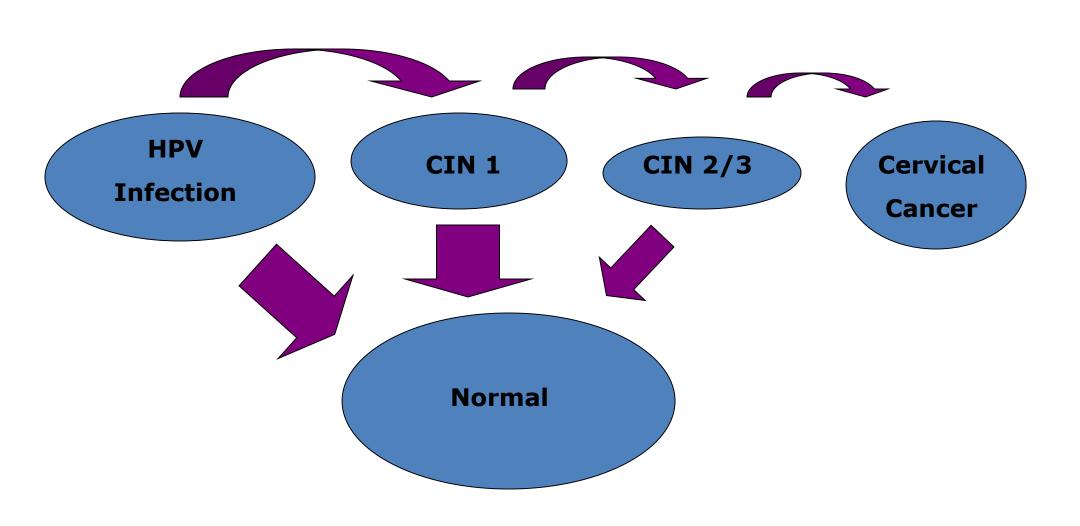
#### **Development Cancer**





Cancer

## **Natural History**





#### Cervical cancer

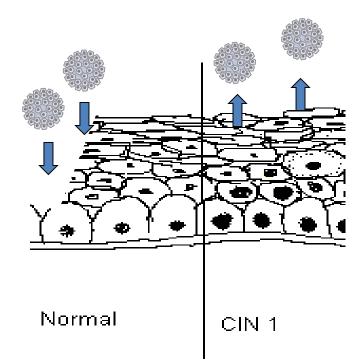
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#### **HPV Vaccines**



#### Preventative

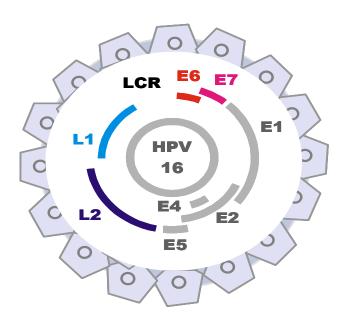
- Antibodies
- Viral Capsid proteins L1,
  L2



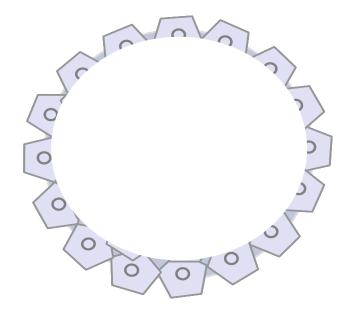
### When to vaccinate?



#### **HPV Virus**



## Virus Like Particles (VLPs)



## Potential for coverage by type

Number of Types	HPV Type	Cummulative %
I	HPV 16	59
2	<b>HPV</b> 18	74
3	<b>HPV 45</b>	80
4	HPV 31	84
5	<b>HPV</b> 33	88
6	<b>HPV</b> 58	90
7	HPV 52	93

#### **HPV Vaccines**

#### Cervarix

- HPV 16, 18
- ASO4

#### **Gardasil**

- HPV 16, 18
- HPV 6, 11
- Alum

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#### New Zealand

- Coverage approximately 50% eligible girls
- Girls and boys eligible now

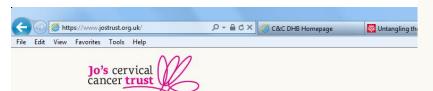
#### Cervical cancer and HPV

- HPV we all get it
- HPV vaccination safe
- HPV vaccination effective

If you get asked – please don't hesitate



Q





#### Information and support

Affected by cervical cancer?

Diagnosis, staging, treatment, side effects and life after cancer...

Received abnormal screening results?

Abnormal results, HPV testing, colposcopy and Questions about cervical screening?

Cervical screening (smear test), what to expect and

























## Questions?



