Headphones

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Four Types of Headphones

- 1. Over-Ear
- 2. On-Ear
- 3. Closed-Back
- 4. Open-Back

Over-Ear Advantages

- Comfortable
- Sound Quality
- Noise Isolation
- Most Noise Active (vs. Passive) Noise-Cancelling Headphone are this design

Over-Ear Disadvantages

- Portability
- Cost

On-Ear Advantages

- Portability
- Style
- Better suited for more activities

On-Ear Disadvantages

- Not as comfortable as over-ear headphones

- Not as much sound isolation as over-ear headphones

- Sound leaks out to surroundings

Closed-Back Advantages

- Good noise isolation

- Good sound Leakage

- Better bass than open-back (consumer models)

Closed-Back Disadvantages

- Breathability
- Individual ear shape needs to match opening and cushions

Open-Back Advantages

- Audiophile-level sound quality.
- Breathability

Open-Back Disadvantages

- Noise isolation
- Sound leakage

High-End Professional Headphones

- Linear frequency response
- Excellent frequency response over wide dynamic range
- Rugged
- High-quality material
- Built to be comfortable over long periods of time
- Usually can be rebuilt

Active Noise Cancelling

- Initially developed for long-distance airplane flight
- Work best at eliminationing constant, lower frequency "noise"
- Require batteries to work
- Often have a power switch on them

Wired Advantages

- Price

- Sound quality

- No batteries and/or charging

Wired Disadvantages

- Cable
- Having the correct plug (male) to the correct jack (female)

Besides Size?

- Sound quality the same

- However, ¼":

- 1. As they are larger they are less prone to break

- 2. Larger size can mean larger wires between plug (the male end) and the jack (the female or input)

- 3. There is a larger surface area between the plug and jack meaning greater connectivity.

Wireless Advantages

- No cord!
- Better for wearing during activities

Wireless Disadvantages

- Sound quality compared to wired headphones

- "Extra" electronics

- Pairing problems between some devices

- The need for batteries and/or charging